

BID DOCUMENT:

SUPPLY AND DELIVERY OF PILLAR BOXES, CIRCUIT BREAKERS, FUSE-UNITS, CARRIERS AND FUSES, COPPER BUSBAR, CONTACTORS AND DAYLIGHT SWITCHES, RIPPLE AND RADIO CONTROL RECEIVER RELAYS, CURRENT TRANSFORMERS AND LOW VOLTAGE DISTRIBUTION BOARDS

BID NUMBER: CD13/2026

CLOSING DATE AND TIME: REFER TO THE "CALL FOR BIDS" DOCUMENT

EMPLOYER:

CENTLEC (SoC) LTD

**30 Rhodes Avenue
Oranjesig
Bloemfontein
9301**

Represented by:

**Mr MS Sekoboto
Chief Executive Officer**

FOR ENQUIRES:

TECHNICAL ENQUIRIES:

Supply Chain Management - Stores

Email: lieb.liebenberg@centlec.co.za

Andre.Oelofse@centlec.co.za

ADMINISTRATIVE ENQUIRIES:

**Supply Chain Management
Senior SCM Practitioner: Ms. Palesa
Makhele**

Email: Palesa.Makhele@centlec.co.za

Name of Bidder :

Bid Amount (Incl.Vat) :

Amount in Words (Incl.Vat) :

CSD Registration Number :

SUMMARY FOR BIDDERS` DETAILS

NAME OF BIDDER : _____

ADDRESS : _____

CELLPHONE NUMBER: _____

TELEPHONE NUMBER : _____

FAX NUMBER : _____

E-MAIL ADDRESS : _____

CLOSING DATE : _____

Signed by authorised representative of the BIDDER: _____

DATE: _____



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1. BIDDING PROCEDURES

1.1. BID NOTICE

CENTLEC (SOC) Ltd (hereafter referred to as CENTLEC) a Municipal Entity distributing electricity in Mangaung Metro invites bids for supply and delivery of pillar boxes, circuit breakers, fuse-units, carriers and fuses, copper busbar, contactors and daylight switches, ripple and radio control receiver relays, current transformers and low voltage distribution boards for a period of thirty-six (36) months.



Table 1: Preferential Procurement Policy Framework

Bid No.	Description	Non-Refundable Bid Document Price	Compulsory Briefing Session	Price Preference Point System	Bid Closing Date and Time	Minimum Functionality Score
CD13/2026	CENTLEC (SOC) Ltd (hereafter referred to as CENTLEC) a Municipal Entity distributing electricity in Mangaung and other Municipalities invites bids for supply and delivery of pillar boxes, circuit breakers, fuse-units, carriers and fuses, copper busbar, contactors and daylight switches, ripple and radio control receiver relays, current transformers and low voltage distribution boards for a period of thirty-six (36) months	NOT APPLICABLE	N/A	90/10	SCM	80%

Preferential Procurement Policy Framework Act No.5 of 2000: Preferential Procurement Regulations 2022 and Supply Chain Management Policy of Centlec (SoC) Ltd will apply in the adjudication process. Method 4 of evaluation of the acceptable proposals will be applied and responsive bids are expected to score at least a minimum of 80 out of 100 points (80%) for functionality points to be considered for further evaluation. Bids will be adjudicated according to the 90/10 of the Price Preferential point system.

O.P.P.R.
41 Pages
[Handwritten signature]

1.2. MANDATORY RETURNABLE DOCUMENTS

The following mandatory returnable documents forms part of the qualification criteria into the bid:

- i Certified Copy of Company Registration certificate.
- ii Certified Copy (ies) of Company director(s) Identification Documents.
- iii Full CSD (not a summary) registration report (to be verified during adjudication).
- iv Supply municipal services (water, sanitation, rates, and electricity) clearance certificate or Lease Agreement with a current Bill and rates clearances, or Current Bill of Account not owing more than 90 days. In a case where the services are paid by the Landlord, the signed lease agreement and statement of account must be submitted by the bidder. In an event, that the Bidder utilizes prepaid services (e.g. Water or electricity) a valid municipal clearance certificate(s) must still be provided.
- v Valid SARS TCS (Tax Compliant Status) Pin.
- vi Completion of all relevant and necessary document forms including all MBD forms.
- vii Valid Proof of Indemnity (Insurance) of a minimum amount of R 2 million. Refer to **section F.2.9** Insurance in the general conditions of contract.
- viii Valid proof of Authority to sign the Bid.

Bids will be subjected to the, CENTLEC Supply Chain Management Policy, and its Preferential Procurement Policy (PPR 2022). Original or certified valid copy of B-BBEE Certificate / or sworn B-BBEE affidavit must be submitted to claim preference points. Bidders who do not submit B-BBEE Status Level Verification Certificates or are non-compliant contributors to B-BBEE do not qualify for preference points for specific goals but will not be disqualified from the bidding process.

This bid document should be in a sealed envelope duly endorsed “**BID NUMBER AND DESCRIPTION.**” must be placed in the bid box situated at 30 Rhode Avenue, Oranjesig, Bloemfontein, 9301 on or before **the closing date**. Bidders are mandated to write their names, name of the bidding entity, contact details including e-mail addresses on the bid submission register next to the Bid Box as proof for submission, failure which, submission will NOT be considered for evaluation.

NOTE: Only those bidders who are registered on the Central Supplier Database (CSD) registered prospective bidders are eligible to submit bids. The entity reserves the right to appoint more than one service provider. The entity does not bind itself to accept or award the lowest priced bid. The Council may elect to accept only part of the successful bid. Entity reserves the right not to appoint or withdraw the bid and the right to award the bid wholly or partly at its sole discretion. The adjudication process and the award, if an award is made, will conform to the requirements of the Supply Chain Management Regulations, the Preferential Procurement Policy Framework Act and the Preferential Procurement Regulations of 2022. Only the version of this notice and invitation contained in the bid document shall form part of the bid. No correspondences will be entered into with regards to evaluation scores obtained. Bids may only be submitted on the original bid documentation that is issued by the employer. Bids are valid for a period of one hundred and twenty (120) days after closing date.

If you do not hear from us within 120 days after the closing date, please consider your bid unsuccessful, you can also visit Centlec website as all awarded bids are published.

MBD1

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF CENTLEC SOC LTD					
BID NUMBER:	CD13/2026	CLOSING DATE:		CLOSING TIME:	11:00
DESCRIPTION	SUPPLY AND DELIVERY OF PILLAR BOXES, CIRCUIT BREAKERS, FUSE-UNITS, CARRIERS AND FUSES, COPPER BUSBAR, CONTACTORS AND DAYLIGHT SWITCHES, RIPPLE AND RADIO CONTROL RECEIVER RELAYS, CURRENT TRANSFORMERS AND LOW VOLTAGE DISTRIBUTION BOARDS				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MUST DEPOSITED IN *THE BID BOX SITUATED AT:*

30 Rhode Avenue,					
Oranjesig					
Bloemfontein					
9301					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
SPECIFIC GOALS STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		SPECIFIC GOALS STATUS LEVEL/ SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No	

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

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	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	Supply Chain Management	DEPARTMENT	Supply Chain Management - Stores
CONTACT PERSON	Ms. P Makhele	CONTACT PERSON	Mr. Lieb Liebenberg Mr. Andre Oelofse
TELEPHONE NUMBER	051 412 2753	TELEPHONE NUMBER	051 409 2428 051 409 2290
FACSIMILE NUMBER	n/a	FACSIMILE NUMBER	n/a
EMAIL ADDRESS	Palesa.Makhele@centlec.co.za	EMAIL ADDRESS	lieb.liebenberg@centlec.co.za Andre.Oelofse@centlec.co.za

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PR AB

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) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
- 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.
- 2.8. SUPPLY MUNICIPAL SERVICES (WATER, SANITATION, RATES, AND ELECTRICITY) CLEARANCE CERTIFICATE OR LEASE AGREEMENT WITH A CURRENT BILL AND RATES CLEARANCES, OR HARDWARE CURRENT BILL OF ACCOUNT NOT OWING MORE THAN 90 DAYS. IN A CASE WHERE THE SERVICES ARE PAID BY THE LANDLORD, THE SIGNED LEASE AGREEMENT AND STATEMENT OF ACCOUNT MUST BE SUBMITTED BY THE BIDDER.
 - 2.8.1. IN AN EVENT THAT THE BIDDER UTILIZES PREPAID SERVICES (E.G. WATER OR ELECTRICITY) A VALID MUNICIPAL CLEARANCE CERTIFICATE(S) MUST STILL BE PROVIDED.
- 2.9. SUBMIT PROOF OF REGISTRATION ON THE NATIONAL TREASURY CENTRALIZED SUPPLIER'S DATABASE.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

- | | |
|--|--|
| 3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? | YES <input type="checkbox"/> NO <input type="checkbox"/> |
| 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? | YES <input type="checkbox"/> NO <input type="checkbox"/> |
| 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? | YES <input type="checkbox"/> NO <input type="checkbox"/> |
| 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? | YES <input type="checkbox"/> NO <input type="checkbox"/> |
| 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? | YES <input type="checkbox"/> NO <input type="checkbox"/> |

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.

[Handwritten signatures and initials]

4. MANDATORY RETURNABLES, BID RULES AND INSTRUCTIONS (FAILURE TO COMPLY WITH THE PRE-SET REQUIREMENTS)

- 4.1. DULY COMPLETED AND SIGNED MBD 1 FORM BY SERVICE PROVIDER AND FORMAL WRITTEN PRICE QUOTATION BY THE BIDDER.
- 4.2. COMPLETION AND SIGNING OF ALL DECLARATION FORMS (MBD)
- 4.3. SUBMISSION OF A VALID SARS TCS PIN
- 4.4. PROOF AND DECLARATION THAT THE BIDDER IS NOT IN ARREARS OF MUNICIPAL RATES MORE THAN 90 DAYS
- 4.5. REGISTRATION WITH THE HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA (HPCSA) FOR OCCUPATIONAL HEALTH MEDICAL DOCTORS AND SOUTH AFRICAN NURSING COUNCIL (SANC) FOR OCCUPATIONAL HEALTH NURSES.
- 4.6. BIDDER MUST PROVIDE CERTIFIED ID COPIES OF ALL DIRECTORS, SHAREHOLDERS, AND PARTNERS.
- 4.7. ALL CERTIFIED COPIES MUST NOT BE OLDER THAN SIX (06) MONTHS FROM CLOSING DATE.
- 4.8. CERTIFIED COPY OF COMPANY REGISTRATION CERTIFICATE TO BE ATTACHED WITH THE BID DOCUMENT
- 4.9. CENTRAL SUPPLIER DATABASE (CSD) REGISTRATION NUMBER, AND
- 4.10. DECLARATION THAT BIDDER IS NOT IN ARREARS OF ANY MUNICIPAL RATES, MUNICIPAL RATES OF EACH COMPANY DIRECTOR, VALID LEASE AGREEMENT AND LEASE DECLARATION BY LESSOR OR PROOF OF RESIDENCE FROM THE MUNICIPAL COUNCIL (IF OPERATING BUSINESSES FROM AN INFORMAL NON-BILLED RESIDENTIAL AREA)

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: :

NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE. ALL CERTIFIED COPIES MUST NOT BE OLDER THAN SIX MONTHS FROM BID CLOSING DATE. COPIES OF CERTIFIED COPIES WILL NOT BE CONSIDERED AS VALID COPIES.

2. BID DATA

Clause	Wording (Data)
	The employer is Centlec (SOC) Ltd.
	<p>The bid documents issued by the employer comprise:</p> <p>1: BIDDING PROCEDURES</p> <p>1.1: Bid Notice and Invitation to Bid</p> <p>1.2: Bid Data</p> <p>2: RETURNABLE DOCUMENTS</p> <p>2.1: List of Returnable Documents</p> <p>5: SCOPE OF WORKS</p>
	<p>The Employer's agent is:</p> <p>The Chief Executive Officer Mr. MS Sekoboto</p> <p>Centlec (SOC) Ltd 30 Rhodes Avenue Oranjesig Bloemfontein 9301</p>
	<p>Only those bidders who satisfy the following eligibility criteria are eligible to submit bids:</p> <p>a) CSD Registered service providers.</p> <p>b) Bidders not listed on National Treasury's Bid Defaulters Database and Restricted suppliers.</p> <p>c) Bidders registered at the relevant and designated authorities/professional bodies.</p>
	<p>The Employer's address for delivery of bid offers and identification details to be shown on each bid offer package are:</p> <p>Location of bid box: Centlec (SOC) Ltd Supply Chain Management Offices</p> <p>Physical address: 30 Rhodes Avenue, Oranjesig, Bloemfontein 9301</p>
	Postal address: 30 Rhodes Avenue, Oranjesig, Bloemfontein 9301
	A two-envelope procedure will not be followed.
	Compulsory Briefing Meeting Date and Time: NO Compulsory Briefing will held
	The closing time for submission of bid offers is:

	Telephonic, telegraphic, telex, facsimile or e-mailed bid offers will NOT be accepted.
	The bid offer validity period is 120 days.
Clause	Wording (Data)
	The bid shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
	The bidder is required to submit the following certificates with his bid: Particulars of any contracts awarded by an organ of state during the last five years including particulars of any material non-compliance or dispute concerning their execution over this period (if >R10 000 incl. VAT); and
	The time and location for opening of the bid offers are in accordance with regulation 23 of the MFMA
	Functionality Requirements: Prospective Bidders are required to score a minimum of 80 points or 80% for them considered for further evaluation
	the B-BBEE balanced scorecard - Bidders are required to submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof together with their bids, to substantiate their Specific Goals rating claims as stipulated in the Preferential Procurement Policy Framework Act, Act No.5 of 2000 and Preferential Procurement Regulation 2022.
	Bid offers will only be accepted on condition that: the bidder has in <u>his or her possession</u> an original Tax Clearance Certificate / valid and compliant SARS TCS Pin issued by the South African Revenue Services;
	a) the bidder is registered with the Central Supplier Database of National Treasury; b) the bidder or any of its directors is not listed in the Register of Bid Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
	the bidder has not: c) abused the Employer's Supply Chain Management System; or i) failed to perform on any previous contract and has been given a written notice to this effect; and ii) has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the bid process.
	d) The number of paper copies of the signed contract to be provided by the Employer is ONE (1).
	The Entity reserves the right to appoint more than one service provider. The Entity reserves the right to cancel or withdraw the bid, or not to award.

3. RETURNABLE DOCUMENTS

(Bidder Must comply with the set out Schedules below, bid rules and Instructions, failure to comply will result in bid being nonresponsive). THE FOLLOWING FORMS and documents are mandatory returnable for bids to be considered responsive:

LISTS OF RETURNABLE DOCUMENTS

- i. Certificate of Attendance at clarification meeting (not applicable).
- ii. Record of addenda (where applicable).
- iii. Certificate of Authority of Signatory and Proof / Letter of Authority to Sign Bid Document.
- iv. Registration certificate / Agreement / Identity Documents.
- v. Tax Clearance Requirements – Valid SARS TCS PIN.
- vi. Declaration by Bidder MBD 4 (Declaration of Interest).
- vii. Declaration by Bidder MBD 5 (Procurement expected to exceed R10m).
- viii. Declaration by Bidder MBD 6.1 (Preference Claim Points).
- ix. Declaration by Bidder MBD 8 (Bidder's Past Supply Chain Management Practices).
- x. Declaration by Bidder MBD 9 (Certificate of Independent Bid Determination).
- xi. Comprehensive (Not Summary) Central Supplier Database (CSD) Report.
- xii. Supply municipal services (water, sanitation, rates, and electricity) clearance certificate or Lease Agreement with a current Bill and rates clearances, or Current Bill of Account not owing more than 90 days. In a case where the services are paid by the Landlord, the signed lease agreement and statement of account must be submitted by the bidder. In an event, that the Bidder utilizes prepaid services (e.g. Water or electricity) a valid municipal clearance certificate(s) must still be provided.
- xiii. Valid proof of Indemnity (Insurance cover) of a minimum amount of R2 million. Refer to section F.2.9 Insurance in the general conditions of contract.
- xiv. Compulsory Enterprise Questionnaire.

LIST OF OTHER RETURNABLE DOCUMENTS FOR EVALUATION PURPOSES:

- i. Copy of certified B-BBEE SANAS certificate or valid Sworn affidavit certificate
- ii. Minimum requirement stipulated on the call for bids, must also be adhered to.

Note: In Addition: Bidders who fail to comply with the underneath pre-set Bid Instructions and Rules will not be accepted (will be rejected as non-responsive):

All certified documents must not be older than three months from bid closing date, all alterations and cancellations to bid document must be signed by the authorised signatory, employer reserves the right to disqualify bidders for infringing any of the Standard Bid Conditions, rules and issued instructions. ALL pages of the bid document must be initialled by authorised signatory. Copies of

certified copies will not be accepted as valid copies. Bidder's whose names appear on the National Treasury list of Restricted Suppliers and Defaulters will not be accepted.

[Handwritten signature]

PROOF / CERTIFICATE OF ATTENDANCE AT SITE MEETING (NOT APPLICABLE)

This is to certify that (*bidder*)..... of (*address*).....

.....

.....was represented by the person(s) named below at the compulsory meeting held for all bidders at
(*location*)on (*date*).....starting at (*time*)

I / We acknowledge that the purpose of the meeting was to acquaint myself / ourselves with the site of the works and / or matters incidental to doing the work specified in the bid documents in order for me / us to take account of everything necessary when compiling our rates and prices included in the bid.

Particulars of person(s) attending the meeting:

Name:.....Signature:.....

Capacity:.....

Name:.....Signature:

Capacity:

Attendance of the above person(s) at the meeting is confirmed by the Employer's representative, namely:

Name:Signature:

Capacity:Date and Time:

RECORD OF ADDENDA TO BID DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this bid offer, amending the bid documents, have been taken into account in this bid offer:

	Date	Title or Details
1.		
2.		
3.		
4.		

Attach additional pages if more space is required. Bidders are required (mandatory to sign the underneath declaration) irrespective of an Addendum issued or not.

Signed.....

Date.....

Name.....

Position.....

Bidder.....

CERTIFICATE OF AUTHORITY FOR SIGNATORY

Indicate the status of the bidder by ticking the appropriate box hereunder. The bidder **MUST** complete the certificate set out below for the relevant category, and attach their Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents. Bidders **MUST** attach valid Proof of Authority to sign the bid to this form under the Company's Letterhead.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(I) **CERTIFICATE FOR COMPANY**

I,chairperson of the Board of Directors of

.....hereby confirm that by resolution of the Board (copy attached) taken

on.....20.....Mr/Msacting in the capacity of.....

was authorized to sign all documents in connection with the bid for Contract Noand any contract resulting from it, on behalf of the company.

Chairman :

As Witnesses : 1.

2.

Date :

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P.K. D.P.

(ii) CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned, being the key members in the business trading as.....

.....hereby authorise

Mr/Ms..... acting in the capacity of..... to sign all

documents in connection with the bid for Contract Noand any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note: This certificate is to be completed and signed by all of the key members upon whom rests the direction of the affairs of the Close Corporation as a whole.

(III). CERTIFICATE FOR PARTNERSHIP

We, the undersigned, being the key partners in the business trading as,..... hereby authorize Mr/Ms

.....acting in the capacity of.....to sign all

documents in connection with the bid for Contract Noand any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note: This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.

(IV) CERTIFICATE FOR JOINT VENTURE

We, the undersigned, are submitting this bid offer in Joint Venture and hereby authorize

Mr/Ms.....authorized signatory of the company,.....

acting in the capacity of lead partner, to sign all documents in connection with the bid offer for Contract No

.....and any contract resulting from it, on our behalf.

This authorization is evidenced by the attached power of attorney signed by legally authorized signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE NAME AND CAPACITY
Lead Partner		

Note: This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.

(V) CERTIFICATE FOR SOLE PROPRIETOR

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

.....

Signature of Sole owner

As Witnesses:

1.

2. Date

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D.P
P.K

**CERTIFIED COPIES OF REGISTRATION CERTIFICATE / AGREEMENT/ ID
DOCUMENT**

(Important note to Bidder: certified copies of Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents for Sole Proprietors, all as referred to in the foregoing forms and must be inserted here)

MBD 2

TAX CLEARANCE CERTIFICATE REQUIREMENTS

1. The taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with the Receiver of Revenue to meet his / her tax obligations.
2. Bidder must attach a valid SARS TCS Tax Compliance Status Pin Failure to submit the valid Tax Compliance Status (TCS) PIN from SARS will invalidate the bid.
3. In bids where Consortia / Joint Ventures / Sub-contractors are involved each party must submit a separate SARS Tax Compliance Status Pin

MBD 3.1

PRICING SCHEDULE – FIRM PRICES (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	Closing Date

OFFER TO BE VALID FOR..... **120**... DAYS FROM THE CLOSING DATE OF BID.

ITEM	QUANTITY	DESCRIPTION	BID PRICE IN RSA CURRENCY NO. **(ALL APPLICABLE TAXES INCLUDED)
No.	SUM		R

- Required by:
- At:
- Brand and Model N/A
- Country of Origin
- Does the offer comply with the specification(s)? *YES / NO
- If not to specification, indicate deviation(s)
- Period required for delivery *Delivery: Firm / Not firm
- Delivery basis

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

MBD 4

DECLARATION OF INTEREST

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

Full Name:

Identity Number:

Company Registration Number:

VAT Registration Number:

Are you presently in the service of the state? **Yes / No**

If so furnish particulars:

.....

Have you been in the service of the state in the last twelve months? **Yes / No**

If so furnish particulars

.....

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

(a) a member of

- (1) any municipal council;
- (2) any provincial legislature; or
- (3) 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
- (e) constitutional institution within the meaning of the Public Finance Management Act, 1999 (act no 1 of 1999);
- (f) a member of the accounting authority of any national or provincial Do you, have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? **Yes / No**

If so, furnish particulars.....

.....

Are you, aware of any relationship (family, friendly, other) between a bidder and persons in the service of the state who may be involved with the evaluation and adjudication of this bid. **Yes / No**

If so, furnish particulars.....

.....

.....

Are any of the company's directors, managers, principle Shareholders or stakeholders in the service of the State? **Yes / No**

If so, furnish particulars.....

.....

Is any spouse, child, or parent of the company's directors, managers, principle shareholders or stakeholders in service of the state? **Yes / No**

If so, furnish particulars.....

.....

PR  DP 

Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. **Yes / No**

If yes, furnish particulars:.....

.....

Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)

.....
CERTIFY THAT THE INFORMATION FURNISHED ON THE DECLARATION FORM IS TRUE AND CORRECT. I ACCEPT THAT, IN ADDITION TO CANCELLATION OF CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
SIGNATURE

.....
DATE

.....
POSITION

MBD 5

DECLARATION FOR PROCUREMENT ABOVE R10-MILLION (ALL APPLICABLE TAXES INCLUDED) for all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

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

CERTIFICATION

I, the undersigned certify that the information furnished on this declaration form is correct. I accept that the state may act against me should this declaration prove to be false.

NAME OF REPRESENTATIVE	AUTHORIZED SIGNATURE (UNDERSIGNED)
DATE:	CAPACITY:

P.K. 
D.P.

MBD 6.1

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

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

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

1. GENERAL CONDITIONS

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

- 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 value of this bid is estimated to exceed R 50 000 000 and
- b) therefore the 90/10 preference point system will be applied.

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

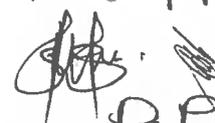
- (a) Price; and
- (b) Specific Goals.

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

The maximum points for this bid are allocated as follows:

	POINTS	POINTS
PRICE	90	80
SPECIFIC GOALS	10	20
Total points for Price and SPECIFIC GOALS	100	100

1.5 Failure on the part of a bidder to submit proof or documentation required in terms of this bid to claim points for specific goals with the bid, 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 bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) “**bid**” 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 bidding process or any other method envisaged in legislation;
- (b) “**price**” means an amount of money bided 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) “**bid 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 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

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

80/20 or 90/10

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

Where

- Ps = Points scored for price of bid under consideration
- Pt = Price of bid under consideration
- Pmin = Price of lowest acceptable bid

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20 or 90/10

$$Ps = 80 (1 + \frac{Pt - P_{max}}{P_{max}}) \text{ Or } Ps = 90 (1 + \frac{Pt - P_{max}}{P_{max}})$$

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmax = Price of highest acceptable bid

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the bid. For the purposes of this bid the bidder will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this bid:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the bid documents, stipulate in the case of—

(a) an invitation for bid for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable bid will be used to determine the applicable preference point system; or

(b) any other invitation for bid, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable bid will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the bid 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 bidders: The bidder **MUST** indicate how they claim points for each preference point system.)*

The specific goals allocated points in terms of this bid	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the bidder)	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the bidder)
50% or more Black Owned enterprise <i>To be verified through CIPC Certificate, or share certificate CSD Report</i>	10		5	
50% or more Women shareholding <i>To be verified through CIPC Certificate, or share certificate CSD Report</i>	5		2.5	
50% or more Youth shareholding <i>To be verified through CIPC Certificate, or share certificate CSD Report</i>	5		2.5	
Total Specific Goals Points	20		10	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. 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]

- 4.6. 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 bid, 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 bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

..... SIGNATURE(S) OF BIDDER(S)	
SURNAME AND NAME:
DATE:
ADDRESS:

P.K

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

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
1.1	Is the Bidder or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.1.1	If so, furnish particulars:		
1.2	Is the Bidder or any of its directors listed on the Register for Bid Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? (To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Bid Defaulters" or submit your written request for a hard copy of the Register to facsimile number 012 3265445).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.2.1	If so, furnish particulars:		
1.3	Was the Bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.3.1	If so, furnish particulars:		
1.4	Does the Bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.4.1	If so, furnish particulars:		
1.5	Was any contract between the Bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
1.5.1	If so, furnish particulars:		

*where the entity bidding is a joint venture, each party to the joint venture must sign a declaration in terms of the Municipal Finance Management Act and attach it to this schedule


P.K D.P

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.

Signed

Date

.....

.....

Name

Position

.....

.....

Bidder

.....


P.K
D.P

MBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. 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
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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 successful bidders who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

P.R
D.P

CERTIFICATE OF INDEPENDENT BID DETERMINATION

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)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word

“competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

- (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation);
 - (c) methods, factors or formulas used to calculate prices;

P.R
D.P

- (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

PK
D.P

PROOF OF CSD REGISTRATION

Bidders MUST attach Proof of Comprehensive CSD registration report hereto and provide CSD Supplier Number:

MAAA _____

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME).....
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I FURTHER UNDERTAKE FULL REPSONSIBILITY FOR ANY INCORRECT INFORMATION PROVIDED AND THAT THE EMPLOYER (CENTLEC (SOC) Ltd.) MAY NOT BE HELD ACCOUNTABLE FOR INCORRECT INFORMATION PROVIDED.

Signed	Date
.....

Name	Position
.....

Bidder
.....

P.K
D.P

MUNICIPAL UTILITY ACCOUNT / LEASE AGREEMENT / PROOF OF RESIDENCE

*(Affix hereto RECENT / LATEST proof of municipal services account for tax & rates STATEMENT not owing more than three (3) months hereto) / Valid lease Agreement (Proof that leased premises rates are not in arrears for more than 90 days) / Proof of Residence for bidders that reside in non-billed municipal area or jurisdiction.
Bidders MUST complete the clearance certificate a set out below.*

P. R. D. P.

CLEARANCE CERTIFICATE FOR WATER & LIGHTS

Section 45(1)(d) of Municipal Supply Chain Regulations requires that the municipality must reject a bidder whose municipal rates and taxes are in arrears for more than three months.

The purpose of this schedule is to obtain proof that municipal services, rates and taxes of the service provider are not in arrears for more than three months, with the relevant municipality in the municipal area where the service provider conduct his / her business or if the bidder is a tenant, a Letter from the Landlord stipulating the office space leased and the payment status of the service charges. Should the above not be applicable NO AFFIDIVIT will be acceptable ONLY AN OFFICIAL COUNCIL LETTER OF RESIDENCE from bidders residing in non-billed areas will be acceptable (subject to verification)

Each bidder must complete the below checklist. Important: if you fail to complete this form, the bid will be non-responsive. (Please tick with X where appropriate):

QUESTIONS		YES	NO
1.	Do you own a property?		
2.	Do you receive a municipal rates account?		
3.	Is your municipal rates and taxes account up to date / current (not in arrears for more than three months)?		
4.	If yes, provide the following details:		
4.1	▪ Municipality name		
4.2	▪ Municipal account number		
5.	If yes, please attach proof in the form of the original or certified copy of the bidder's municipal rates and taxes account not older than 3 months		
6.	Does the bidder lease / rent the property where the business is situated?		
7.	If yes, provide the following details:		
7.1	▪ Landlord name		
7.2	▪ Address property is situated		

P.R.
D.P.

7.3	▪ Contact number of landlord		
8.	Please attach the copy of the lease agreement signed by the landlord / lessor and the tenant / lessee as proof		
I, (<i>Insert full name</i>)			
of (<i>insert physical address</i>)			
being a Director, Principal Shareholder, owner of company (<i>Insert company name</i>)			
Hereby confirms that, the information submitted in this form is accurate, to the best of my knowledge			
SIGNATURE:		DATE:	

*** IMPORTANT: IF YOU FAIL TO COMPLETE THIS FORM, PLEASE REGARD YOUR BID AS NON RESPONSIVE**

P.R.  D.P.

Names of all directors, their ID numbers and municipal account number.

Director / Shareholder / partner	ID Number of Director / Shareholder / Partner	Physical residential address of the Director / shareholder / partner	Municipal Account number(s)	Municipality where the account is held

- Certified copies of municipal accounts mentioned of each Director, Shareholder, and partner listed above (Not older than 3 months).

CERTIFICATION

(AUTHORISED SIGNATORY)

I, THE UNDERSIGNED (FULL NAME).....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.

I FURTHER UNDERTAKE FULL REPSONSIBILITY FOR ANY INCORRECT INFORMATION PROVIDED AND THAT THE EMPLOYER (CENTLEC SOC LTD) MAY NOT BE HELD ACCOUNTABLE FOR INCORRECT INFORMATION PROVIDED.

Signed.....

Date.....

Name.....

PK


Position.....

Bidder

.....
COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaire in respect of each partner must be completed and submitted.

Section 1:

Name **of** **Enterprise:**

Section 2: VAT registration number,

if **any:**

Section 3: CIDB registration number,

if **any:**

Section 4: Particulars of sole proprietor and partners in partnerships

Name*	Identity number*	Personal income tax number*

*complete only if sole proprietor or partnership and attach separate page if more than three partners

Section 5: particulars of companies and close corporations

Company registration
number.....

Close corporation
number.....

Tax reference
number.....

PR  I.D.F

Section 6: record of service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- A member of any provincial legislature
- A member of the national assembly or the National Council of Province
- A member of the board of directors of any Municipal entity
- An official of any municipality or municipal entity
- A member of any municipal council
- An employee of any provincial department national or provincial public entity or constitutional institution within the meeting of public finance management Act, 1999 (act 1 of 1999)
- A member of an accounting authority of any national or provincial public entity
- An employee of parliament or a provincial legislature

If any of the above boxes are marked, disclose the following: (insert separate page if necessary)

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

*insert separate page if necessary

Section 7: Indicate by marking the relevant boxes with a cross, if any sole proprietor, partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

- A member of any provincial legislature
- A member of the national assembly or the National Council of Province
- A member of the board of directors of any Municipal entity
- An official of any municipality or municipal entity
- A member of any municipal council
- An employee of any provincial department national or provincial public entity or constitutional institution within the meeting of public finance management Act, 1999 (act 1 of 1999)
- A member of an accounting authority of any national or provincial public entity
- An employee of parliament or a provincial legislature

P.R. 

Name of spouse, child or parent	Name of institution, public offices, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

*insert separate page if necessary

The undersigned, who warrants that he/she is duly authorised to do so on behalf of the enterprise:

- (i) Authorise the employer to obtain a tax clearance certificate from the South African Revenue services that my/our tax matters are in order;
- (ii) Confirms that the neither the name of the enterprise or the name of any partner, manage, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the register on the bid defaulters established in terms of the prevention and combating of corrupt activities Act of 2004;
- (iii) Confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- (iv) Confirms that I / we are not associated, linked or involved with any other bidding entities submitting bid offers and have no other relationship with any of the bidders or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- (v) Confirms that the contents of this questionnaire are within my personal knowledge and are to be the best
- (vi) Of my belief both true and correct.

Signed

Date

.....

Name.....

Position.....

Bidder.....

.....

PK
D.F.

COMPANY INFORMATION:

HEAD OFFICE	
Physical address Building: Street: Suburb: City/Town: Province District/Metropolitan Council: Local Municipality:	
Postal address	
Telephone no.	
Fax no.	
E-mail	
If subsidiary company- state name of holding company	

DETAILS OF BRANCH OFFICES:

BRANCH OFFICE	
Physical address Building: Street: Suburb: City/Town: Province District/Metropolitan Council: Local Municipality:	

PR
[Handwritten signature]
D.P.

Postal address	
Telephone no.	
Fax no.	
E-mail	
If subsidiary company- state name of holding company	

4. EVALUATION CRITERIA

Proposals documents will be evaluated in two phases. The evaluation criteria for the assessment of the proposals will be on mandatory returnable documents, functionality and financial aspects.

In the first phase:

Bids will be evaluated on mandatory returnable documents as listed and required in the document.

In the second phase:

Proposals will be evaluated according to the functionality criteria indicated apart from those laid down in the preferential procurement regulations, 2022 pertaining to the preferential procurement policy framework Act 5 of 2000. Bidders are expected to score a minimum of **80%** to be ACCEPTED:

QUALITY / FUNCTIONALITY EVALUATION OF THE PROPOSALS:

EVALUATION CRITERIA

No.	Criteria	Guidelines for criteria application	Min. Points	Max. Points	Verification method
1	Track record and experience	<p>Has the bidder successfully provided these products in the last four years? A minimum of three (3) reference letters of confirmation is required where the products were delivered.</p> <p>a) Three (3) letters = 30 points</p> <p>b) Four (4) letters or more = 40 points</p>	30	40	Reference letters must be on the company's letterhead, stamped and signed by the duly authorized company representative.
2	Quality and compliance to SANS requirements as specified in the technical specifications	<p>Bidder must submit standards certificates for all items that needs to comply with such standards.</p> <p>The following Certificates must be submitted:</p> <p>a) ISO 9001 certificate as obtained from the manufacturer = 20 points</p> <p>b) Relevant SANS Certificates as per technical specification as obtained from manufacturers = 20 points</p>	40	40	SANS and ISO Certificates
3	Local (Mangaung) operational and economic investment	<p>Does the bidder have a local office with operational capability?</p> <p>(a) Existing and established local office = 20 points</p> <p>(b) If not, but within RSA = 10 points</p>	10	20	Municipal tax and rates account or a lease agreement contract with statement of account
	TOTAL		80	100	

A bidder who gets a minimum of 80 points and above will qualify to the next stage. The bidder must score minimum points as follows:

Item 1: Minimum points = 30

Item 2: Minimum points = 40

Item 3: Minimum points = 10

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5. SCOPE OF WORK

5.1. BACKGROUND

CENTLEC, located in Mangaung Metropolitan, have prioritized electrical infrastructural stability to ensure service delivery. The Municipal entity has a constitutional mandate to ensure the provision of electrical services to the community of Mangaung Metropolitan area.

5.2. OBJECTIVES

The overall objective of the appointment is to supply and deliver electrical store items to CENTLEC. The contract with CENTLEC will be for a period of thirty-six (36) months.

5.3. SCOPE OF WORK

This contract covers the supply and delivery of pillar boxes, circuit breakers, fuse-units, carriers and fuses, copper busbar, contactors and daylight switches, ripple and radio control receiver relays, current transformers and low voltage distribution boards as described in the specification and schedules. All equipment must be suitable for use on CENTLEC electrical infrastructure.

5.4. TECHNICAL SPECIFICATION

5.4.1. GENERAL SPECIFICATIONS FOR PILLAR BOXES AND METER BOXES:

- 5.4.1.1. Steel meter boxes shall be manufactured with mild steel plate, galvanized as per SANS / ISO 1416 - 2000, hot metal sprayed with aluminum as per SANS 1391-2:1983 or 3CR12 steel alloy plate and all joints are to be welded and treated against corrosion afterwards.
- 5.4.1.2. Earthing of all steel meter boxes shall be fitted with an earth bar as indicated on drawing TS-5-20 or at least one anodized steel stud, M10 x 40mm welded to the meter box, supplied with two anodized washers and nuts, as an earth terminal.

- 5.4.1.3. Meter boxes to be neat and square with knockouts to size indicated on the drawing.
- 5.4.1.4. All metal parts to be properly cleaned in accordance with SANS 064 after all welding, drilling and grinding has been done and treated. Mild steel parts to be galvanized as per SANS / ISO 1416 - 2000 or hot metal wire sprayed with Aluminum by means of a Metco 4R arc system or similar.
- 5.4.1.5. All metal surfaces shall be primed with a suitable primer complying with the requirements for type 1 of SANS 679, and coated with acceptable, quick drying alkyd enamel complying, in all respects other than drying time, with the requirements for type 1 of SANS 630. The dry film thickness of the primer and the alkyd enamel shall be at least 20µm and the total dry thickness shall be at least 60µm.
- 5.4.1.6. The colour of the final coating shall be an acceptable match to SANS 630 colour No C12 "Avocado green" for all meter boxes.
- 5.4.1.7. Stubby boxes, special locking devices must be according to attached TS-5-58 Drawing. The frames and covers must be exact so that covers are interchangeable.
- 5.4.1.8. All hinges, locking handles and devices to be manufactured with Galvanized/anodized mild steel. Hinges to be mounted on the inside of the door and fitted with brass pins.

- 5.4.1.9. The locking devices of the front doors on the 4-, 6- and 8-way pillar box shall be fitted with an anodized mild steel swivel type padlock latch (3-point locking type) and a protector box shall be fitted as illustrated in figure A1 and A4 in NRS 059-1999. See Drawing TS - 9 -2 & Drawing TS - 5 -57.
- 5.4.1.10. The back covers of these pillar boxes shall slide downwards in position and be hooked on to the frame by means of six concealed hooking devices on the sides (over bended lips or other approved method). The back panel shall be held in the down position by means of two anodized spring-loaded barrel bolts, operated from the inside(front). See drawing TS - 5 - 57. No other material or method will be accepted.

5.4.2. PILLAR AND METER BOXES FOR ELECTRICAL HOUSEHOLD CONNECTIONS

5.4.2.1. PILLAR BOXES AND PLINTHS

5.4.2.1.1. All boxes shall be manufactured with 2 mm (14 SWG) thick mild steel plate, galvanized as per SANS / ISO 1416 - 2000, hot metal sprayed with aluminum as per SANS 1391-1:1983 or 3CR12 steel alloy plate. Dimensioned in accordance with amended Drawing No's TS - 5 - 19, TS - 5 - 20, TS - 5 - 21, TS - 5 - 58, TS - 5 - 59, TS - 9 - 11 and TS - 9 - 12 attached.

Table 1: Pillar Boxes and Plinths

Item	Description	Type of material - specify offered (3CR12)	Manufacturer	Delivery Period in weeks
1.	Domestic pillar box (two way) and Extra covers complete (Drawing TS - 5 - 19 "Avocado green" colour)			
2.	Domestic pillar box (two way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)			
3.	Domestic pillar box (two way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)			
4.	Plinth for the two way pillar box			
5.	4-Way pillar box and Extra covers (Drawing TS - 5 - 20 "Avocado green" colour)			
6.	Domestic pillar box (4-way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)			

Item	Description	Type of material - specify offered (3CR12)	Manufacturer	Delivery Period in weeks
7.	Domestic pillar box (4-way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)			
8.	Plinth for the 4-way pillar box			
9.	6-Way pillar box and Extra covers (Drawing TS - 5 - 21 "Avocado green" colour)			
10.	Domestic pillar box (6-way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)			
11.	Domestic pillar box (6-way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)			
12.	Plinth for the 6-way pillar box			
13.	8-Way pillar box and Extra covers (Drawing TS - 5 - 21 "Avocado green" colour)			
14.	Domestic pillar box (8-way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)			
15.	Domestic pillar box (8-way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)			
16.	Plinth 8-way pillar box			
17.	Stubby Box - One way (Drawing TS - 5 - 59 "Avocado green" colour)	3CR12 cover only		

Item	Description	Type of material - specify offered (3CR12)	Manufacturer	Delivery Period in weeks
18.	Plinth for the 1-way stubby box			
19.	Stubby Box – Two way (Drawing TS – 5 – 58 “Avocado green” colour)	3CR12 cover only		
20.	Plinth for the two-way stubby box			
21.	Pillow type cover for distribution box (Drawing TS – 9 – 11 “Avocado green colour”)	3CR12 cover only		
22.	Pillow type distribution box cover with meter kiosk top (Drawing TS – 9 – 12 “Avocado green colour”)	3CR12 cover only		
23.				
23.1	Window fitted to Item 1.5 (Size 100 x 90 x 6mm lens)			
23.2	Window fitted to Item 1.6 (Size 230 x 90 x 6mm lens)			
24				
24.1	Lens (320 x 130 x 6mm) for Pillar box - two way - Item 1.1	Minimum order = 100		
24.2	Lens (100 x 90 x 6mm) for Stubby - one way - Item 1.5	Minimum order = 100		
24.3	Lens (230 x 90 x 6mm) for Stubby - two way - Item 1.6	Minimum order = 100		

5.4.3. METER BOXES

5.4.3.1. All meter boxes shall be manufactured strictly to size and specification in accordance with Drawing No's. TS - 5 - 2, 18, 18A & 49 as per attached annexure.

5.4.3.2. Each box to be fitted with the existing heavy duty Viro type, rim lock night latch currently utilized by CENTLEC with a special master key combination known as ABC cascading system, set to the BM 44 profiles. (No keys to be supplied, but a sample of the lock which will be supplied by the successful bidder must be submitted for approval prior to delivery).

5.4.3.3. A8 mm Masonite or Super wood board shall be fitted in each box as per drawing.

5.4.3.4. The V-strap clamps on drawing TS - 5 – 18, 18A and 49 shall be arc welded to box and suitable to strap the box to a wooden pole (160-220mm Dia) by means of a 19mm² wide steel strap and buckle with a 10mm gap between the pole and the box.

Table 2: Meter Boxes

Item	Description	Type of material - specify offer (galv. steel, 3CR12 or other)	Delivery Period in weeks
2 A	Rural Meter box with V-strap brackets Drawing TS - 5 - 18	Unpainted, treated 3CR12 steel only	
2 B	3 Phase Rural Meter box with V-strap brackets - Drawing TS - 5 -18 A	Unpainted, treated 3CR12 steel only	

2 C	Standard kVA Meter box - Drawing TS - 5 - 2 ("Avocado green" colour)		
2 D	Pole box for one single phase split pre-payment meter Drawing TS - 5 - 49 (310mm)	Unpainted, treated 3CR12 steel only	
2 E	Pole box for one single phase split pre-payment meter & a ripple relay Drawing TS - 5 - 49 (510mm)	Unpainted, treated 3CR12 steel only	
2 F	Pole box for two single phase split pre-payment meters & a ripple relay Drawing TS - 5 - 49 (805mm)	Unpainted, treated 3CR12 steel only	

5.4.4. READY BOARDS FOR SUB-ECONOMIC HOUSING COMPLETE WITH MOUNTING BASEPLATE (AS PER ITEM 6.4.7)

- 5.4.4.1. Boards shall be of the compression molded glass-fiber reinforced polyester type to SANS 1619: 2006.
- 5.4.4.2. Boards to be pre-assembled and wired to SANS 10142-1: 2003 standard and ready to install.
- 5.4.4.3. Boards to be fitted with one bulkhead fitting with BC Holder for max 60 Watt lamp.
- 5.4.4.4. Board's to house the following equipment: One 60 amp single pole plus neutral earth leakage Unit (2.5 kA 30mA), one 20 amp single pole 2.5 KA Circuit breaker, one 16 A light switch and three 16 A switched plug sockets.
- 5.4.4.5. Boards to be engraved/embossed with the word CENTLEC ($\pm 30 \times 15\text{mm}$) on the face of the board in an approved position and manner.
- 5.4.4.6. Boards to be mounted on to mounting plate and wired with 2 x 800mm long red and black 10mm² PVC Stranded copper wires and connected on the incoming terminals of the earth leakage switch (main) and 1 x 500mm long bare 10mm² stranded copper wire connected to the earth terminal inside the board.
- 5.4.4.7. If boards are equipped with hinges, the hinges must be on the left-hand side (Door to open to the left).

Table 3: Ready Boards

Item	Description	Manufacturer	Delivery Period in weeks
1	Ready Boards		

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5.4.5. MOUNTING BASE-PLATES FOR THE INSTALLATION OF PRE-PAID METERS, FOR PRE-PAID METERS WITH A READY BOARD AND FOR RIPPLE CONTROL RECEIVER RELAYS

5.4.5.1. Baseplates shall be of the compression molded glass-fibre reinforced polyester type.

5.4.5.2. Baseplates to be fitted with 4mm brass inserted nuts.

5.4.5.3. Baseplates to be suitable for:

5.4.5.3.1. Single pre-paid meter

5.4.5.3.2. Pre-paid meter with ready board

5.4.5.3.3. Ripple control receiver relay

5.4.5.4. For detailed design and measurements refer to amended drawing numbers:

TS - 5 - 13, 14 & 15 attached.

5.4.6. BASE-PLATE FOR PRE-PAID METER ONLY AS PER AMENDED DRAWING TS - 5 - 14

Table 4: Baseplates for Pre-paid meters only

Item	Description	Manufacturer	Delivery Period in weeks
1	Base-Plates for Pre-paid meters only		

5.4.7. BASE-PLATE FOR PRE-PAID METER AND READY BOARDS AS PER DRAWING TS - 5 - 13

Table 5: Baseplates for pre-paid meters and ready boards

Item	Description	Manufacturer	Delivery Period in weeks
1.	Baseplates for pre-paid meters and ready boards		

5.4.8. BASE-PLATE FOR RIPPLE RELAY (LOAD CONTROL RELAY) AS PER DRAWING TS - 5 - 15

Table 6: Baseplates for Ripple Relays

Item	Description	Manufacturer	Delivery Time
1.	Baseplates for Ripple Relays		

5.4.9. CIRCUIT BREAKERS FOR STREETLIGHTS

5.4.9.1. All circuit breakers shall be in accordance with SANS 156: 1977 as amended, IEC 60947-2 and bears the mark of the SANS. Preference will be given to the mini rail mounting type breakers for maintenance purposes.

Fault current capacity : 2,5 kA
 Type : Single pole
 Current carrying capacity : 5 Amps and 10 Amps
 Voltage : 230 volt

Physical size;

Length : 82mm

Width : 13mm

Depth : 66mm

Table 7: Circuit Breakers for Streetlights

ITEM	DESCRIPTION	MANUFACTURER	ITEM CODE	DELIVERY TIME IN WEEKS
1.	Streetlight circuit breaker in a pole box with 2m long UV-stable connecting tails			
2.	Miniature Circuit Breaker, S / P, 5 Amp, 2.5kA, Std curve			
3.	Miniature Circuit Breaker, S / P, 10 Amp, 2.5kA, Std curve			
4.	PVC shroud for single miniature breaker on an adaptor plate - type QA-(13)			
5.	Adaptor plate - "S" range to type "E" clip tray - single			

7.7 CIRCUIT BREAKERS SINGLE POLE - 230 / 400V AC

7.7.1 All circuit breakers shall be in accordance with SANS 156: 1977 as amended and bear the mark of the SANS. Preference will be given to the mini rail mounting type breakers for maintenance purposes.

7.7.2 Circuit breakers shall be of the single pole type, complete with shroud, shroud screws and be suitable for surface mounting. Terminals shall be of the box type. All circuit breakers shall carry their rated current as detailed in the schedule for at least one hour without tripping at room temperature. When tested at room temperature, circuit breakers shall carry 200% of their rated current for 6 seconds without tripping but must trip within 20 seconds.

7.7.3 All circuit breakers will be tested upon delivery and those not complying with the load characteristics given above will be rejected. Provision shall be made to seal the circuit breakers in the off position. Full technical information in connection with the circuit breakers offered shall accompany the bid to enable CENTLEC to investigate any technical points that cannot be deduced from the schedule. Tripping current/time curves must be submitted with the bid.

Table 8: Single Pole Circuit Breakers

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	Circuit breaker, S / P, 2 Amp, 2.5kA, Curve 2			
2.	Circuit breaker, S / P, 5 Amp, 2.5kA, Curve 2			

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
3.	Circuit breaker, S / P, 10 Amp, 2.5kA, Curve 2			
4.	Circuit breaker, S / P, 15 Amp, 2.5kA, Curve 2			
5.	Circuit breaker, S / P, 20 Amp, 2.5kA, Curve 2			
6.	Circuit breaker, S / P, 30 Amp, 2.5kA, Curve 2			
7.	Circuit breaker, S / P, 30 Amp, 5kA, Curve 2			
8.	Circuit breaker, S / P, 40 Amp, 2.5kA, Curve 2			
9.	Circuit breaker, S / P, 40 Amp, 5kA, Curve 1			

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ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
10.	Circuit breaker, S / P, 50 Amp, 2.5kA, Curve 2			
11.	Circuit breaker, S / P, 60 Amp, 2.5kA, Curve 2			
12.	Circuit breaker, S / P, 60 Amp, 5kA, Curve 1			
13.	Circuit breaker, S / P, 80 Amp, 5kA, Curve 1			
14.	Circuit breaker, S / P, 100 Amp, 5kA, Curve 1			
15.	Circuit breaker, S / P, 120 Amp, 5kA, Curve 1			
16.	Circuit breaker, S / P, 120 Amp, 5kA, Curve 2			

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ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
17.	PVC shroud for single breaker (5 kA) with surface mounting clip and sealing screws			
18.	PVC shroud for double breaker(5 kA) with surface mounting clip and sealing screws			
19.	PVC shroud for triple breaker with surface mounting clip and sealing screws			

NB: Items 1 - 6, 8, 10, 11 must be curve 2 breakers with a breaking capacity of 2,5 kA.
Items 7, 9, 12 - 15, must be curve 1 breaker with a breaking capacity of 5 kA with a Orange handle. Item 16 must be curve 2 breakers with a breaking capacity of 5 kA

7.8 CIRCUIT BREAKERS 3 POLE - 400V AC

7.8.1 Circuit breakers shall be in accordance with SANS 156: 1977 and bear the mark of the SANS. Circuit breakers shall be suitable for surface mounting. Circuit breakers shall be of the hydraulic-magnetic or thermal-magnetic type of the sizes as specified below. **ALL CIRCUIT BREAKERS SHALL BE RATED AT THE SPECIFIED RATING AND BE OF THE NON-ADJUSTABLE TYPE.**

7.8.2 Circuit breakers shall be fitted with lug-type terminals connecting incoming and outgoing circuits and suitable to accept a minimum size of sectoral aluminium conductor cable type terminal crimping lugs or for connecting copper busbars as follows; Item (1), (2) (3) ~ 120mm² aluminium conductor cable, Item (4) ~ 70mm² copper conductor cable, Item (5) - (6) ~ 185mm² aluminium conductor cable, Item (7) ~ (8) - 300mm² aluminium conductor cable, Item (9) - (11) ~ 50mm x 10mm copper busbar, Item (12) ~ 70mm x 10mm copper busbar. Provision shall be made to seal the circuit breakers in the OFF position. **ALL CIRCUIT BREAKERS MUST BE SUPPLIED COMPLETE WITH PVC SHROUDS AND SEALING SCREWS.**

7.8.3 Full technical information in connection with the circuit breakers offered shall accompany the bid to enable CENTLEC to investigate any technical points that cannot be deduced from the schedule. Tripping current time curves must be submitted with the bid.

Table 9: Triple Pole Circuit Breakers – 400V AC

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
1.	(a) Circuit breaker, 3 pole, 100 amp, 15kA breaking cap. (sym) at 400 V AC			
2.	(b) Circuit breaker, 3 pole, 100 amp, 25kA breaking cap. (sym) at 400 V AC			

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
3.	(c) Circuit breaker, 3 pole, 125 amp, 25kA breaking cap. (sym) at 400 V AC			
4.	(d) Circuit breaker, 3 pole, 150 amp, 25kA breaking cap. (sym) at 400 V AC			
5.	(e) Circuit breaker, 3 pole, 200 amp, 25kA breaking cap. (sym) at 400 V AC			
6.	(f) Circuit breaker, 3 pole, 250 amp, 35kA breaking cap. (sym) at 400 V AC			
7.	(g) Circuit breaker, 3 pole, 300 amp, 35kA breaking cap. (sym) at 400 V AC			
8.	(h) Circuit breaker, 3 pole, 350 amp, 35kA breaking cap. (sym) at 400 V AC			
9.	(i) Circuit breaker, 3 pole, 400 amp, 35kA breaking cap. (sym) at 400 V AC			
10.	(j) Circuit breaker, 3 pole, 500 amp, 40kA breaking cap. (sym) at 400 V AC			

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
11.	(k) Circuit breaker, 3 pole, 630 amp, 40kA breaking cap. (sym) at 400 V AC			
12.	(l) Circuit breaker, 3 pole, 700 amp, 40kA breaking cap. (sym) at 400 V AC			
13.	(m) Circuit breaker, 3 pole, 800 amp, 40kA breaking cap. (sym) at 400 V AC			
14.	(n) Circuit breaker, 3 pole, 1000 amp, 40kA breaking cap. (sym) at 400 V AC			
15.	7a1 PVC shroud and sealing screws for the 3			
16.	7b1 PVC shroud and sealing screws for the 3			
17.	7c1 PVC shroud and sealing screws for the 3			
18.	7d1 PVC shroud and sealing screws for the 3			
19.	7e1 PVC shroud and sealing screws for the 3			
20.	7f1 PVC shroud and sealing screws for the 3			
21.	7g1 PVC shroud and sealing screws for the 3			
22.	7h1 PVC shroud and sealing screws for the 3			
23.	7i1 PVC shroud and sealing screws for the 3			
24.	7j1 PVC shroud and sealing screws for the 3			

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
25.	7k1 PVC shroud and sealing screws for the 3			
26.	7l1 PVC shroud and sealing screws for the 3			
27.	7m1 PVC shroud and sealing screws for the 3			
28.	7n1 PVC shroud and sealing screws for the 3			

7.9 ISOLATING SWITCHES 3 POLE - 230 / 400 V AC

7.9.1 All isolating switches shall be in accordance with SANS 152 as amended and bear the mark of the SANS. Full technical information in connection with the isolating switches offered shall accompany the bid. Rated voltage 660 V AC. All isolating switches must be suitable for surface mounting and supplied complete with a relevant PVC shroud, mounting clips and sealing screws.

Table 10: Isolating Switches Triple Pole

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
1.	8a Isolating Switch, 1 pole, 100 amp, 10kA breaking cap. (sym) at 230 V AC - complete with shroud, clips & screws			

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
2.	8b Isolating Switch, 2 pole, 100 Amp, 10kA breaking cap. (sym) at 400 VAC - complete with shroud, clips & screws			
3.	8c Isolating Switch, 3 pole, 100 amp, 10kA breaking cap. (sym) at 400 V AC - complete with shroud, clips & screws			
4.	8d Isolating Switch, 3 pole, 100 amp, 20kA breaking cap. (sym) at 400 V AC - complete with shroud, clips & screws			
5.	8e Isolating Switch, 3 pole, 200 Amp, 20kA breaking cap. (sym) at 400 VAC - complete with shroud, clips & screws			

ITEM	DESCRIPTION	MANUFACTURER	MANUFACTURER ITEM NO	DELIVERY TIME IN WEEKS
6.	8f Isolating Switch, 3 pole, 300 amp, 30kA breaking cap. (sym) at 400 V AC - complete with shroud, clips & screws			
7.	8g Isolating Switch, 2 pole, 30 amp, 5kA breaking cap. (sym) at 120V DC - complete with shroud, clips & screws			

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7.10 RIPPLE CONTROL RECEIVER RELAYS

- 7.10.1 The receiver shall be completely enclosed in a substantially dust-tight, moisture- and insect-proof case and mounted on a base of non-magnetic material and a polycarbonate cover and separate terminal cover. The cover material shall be resistant against ultraviolet light. Provision must be made for separate attachment of seals to the polycarbonate cover and terminal cover. The case shall be inflammable.
- 7.10.2 The load switch position must be clearly marked e.g., positions marked on/off, A/B. Municipal name, number and code markings shall be provided as specified by the Engineer.
- 7.10.3 The insulation resistance between current carrying parts, the supply voltage circuit, and/or any exposed metal parts shall be at least 5 meg ohms when tested at 500 volts DC.
- 7.10.4 The receiver shall be of the solid-state type and shall continuously monitor the receiver function and signal any malfunction. It must have a preset able switch position upon loss of mains voltage with programmable options upon restoration of mains supply. If programming of the receiver requires the replacement of components such as proms, code cards, etc. The unit price of such a component shall be stated in the price schedule. Preference shall be given to a design where the receiver relays can be programmed via a PC and interface.
- 7.10.5 Testing units for testing the complete receiver including all additional receiver functions shall be offered. All receivers must be adaptable on the existing system.
- 7.10.6 If any software and/or any ancillary instruments are needed to program the receivers the unit price of such software and/or instruments shall be stated in the price schedule.

GENERAL:

Supply voltage (Nominal Voltage): 200/250V

Supply frequency: 50 Hz (-2% +2%)

Operating signal: Volts: _____ (% Vn)

: Non-operating Level: _____ (% Vn)

: Frequency: 425/1050 Hz (Reprogrammable)

: Bandwidth: _____ Hz

: Harmonics Immunity: _____ Hz

Maximum number of relays per receiver : _____ (1 → 6)

Continuous current rating: _____ (not less than 25A at 400V AC)

Guaranteed short circuit current rating for 5 sec: _____ AMPS

Guaranteed short circuit current rating for 10 sec: _____ AMPS

Material of load contacts: _____

Type of load switch (e.g. Single Throw): _____

Guaranteed number of operations at rated current and voltage: _____

Guarantee on complete receiver : _____

Preference shall be given to 40-amp contacts for geysers and 16 - 25 amp for traffic control purposes.

Table 11: Receivers

ITEM	DESCRIPTION	CURRENT RATING OF CONTACT	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	Receiver with 1 x 40A contact			
2.	Receiver with 2 x 40A contacts			
3.	Receiver with 3 x 40A contacts			
4.	Receiver with 5 x 16A contacts			
5.	Receiver with 1 x 25A contact			
6.	Receiver with 2 x 25A contacts			

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ITEM	DESCRIPTION	CURRENT RATING OF CONTACT	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
7.	Receiver with 3 x 25A contacts			
8.	Software program			
9.	Signal volt Meter (1050Hz)			
10.	Signal volt meter (425Hz)			
11.	Programming device			
12.	Loose Contact Assembly 25A			
13.	Loose Contact Assembly 40A			
14.	Clip in receiver 25A single pole – DIN rail			
15.	Clip in receiver 25A single pole – Samite rail			

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7.11 RING TYPE (METERING) CURRENT TRANSFORMERS (LOW VOLTAGE)

7.11.1 Specifications for ring type LV current transformers. All current transformers must be supplied complete with PVC shrouds and sealing screws.

DESCRIPTION:

Burden (Minimum)	: 10 VA
Class	: 0.5
Insulation Level	: 660 Volt
Frequency	: 50 Hz
Maximum outer diameter	: 150mm
Minimum inner diameter	: 60mm
Maximum Width	: 80mm
Position of terminals	: 45° to mounting bracket
Mounting bracket	: Bottom, flat with 2 x 8mm Dia Holes
Terminals	: 6mm Brass studs, nuts & washers
Phase displacement	: None

Table 12: Low Tension Current Transformers

ITEM	RATIO	PHYSICAL SIZE	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	200/5			
2.	300/5			
3.	400/5			
4.	500/5			
5.	600/5			

6.	800/5				
ITEM	RATIO	PHYSICAL SIZE	MANUFACTURER CODE	ITEM	DELIVERY TIME IN WEEKS
7.	1000/5				
8.	1200/5				
9.	1500/5				

Compliance to BS 7626 : YES/NO _____

Accuracy class of test instrumentation : _____

NB_TEST CERTIFICATES STATING ACCURACY SHALL BE PROVIDED WITH EACH CURRENT TRANSFORMER. NO CONSIGNMENT WILL BE ACCEPTED UNLESS IT IS ACCOMPANIED BY ALL THE RELEVANT TEST CERTIFICATES.

7.12 CURRENT TRANSFORMERS FOR USE ON MEDIUM VOLTAGE (12kV) SYSTEM

7.12.1 Current transformers shall only be ring type unless specifically specified as primary wound.

Wound primary current transformers must be fitted with straight bus bar or 90 degree bend bus bar as specified when ordered. All current transformers must be supplied complete with PVC shrouds and nonconductive sealing mechanism. **NB: Ring type current transformers to be supplied without busbars.**

7.12.2 All current transformers to be fitted with flat bottom mounting brackets with four 10mm dia slotted holes. Ring type CT'S inside diameter to be at least 65mm.

Outside diameter not to exceed 165mm and the height is not to exceed 200mm.

One additional set of rating plates (stickers) must be supplied with each current transformer, temporarily affixed to it. Current transformers must comply with BS 7626 and IEC 60044-1.

Please Note:

- (a) Bidder must submit fully dimensioned drawings with the bid documents.
- (b) Test certificates stating accuracy shall be provided with each current transformer. No consignment will be accepted unless it is accompanied by all the relevant test certificates. Serial numbers shall be provided on each current transformer and the corresponding certificate.

Medium Voltage Current Transformers

ITEM	DESCRIPTION	FOR METERING	FOR PROTECTION	FOR PROTECTION
1.	Burden minimum	10 VA	-	10VA
2.	Class	0,5	X	10p10
3.	Voltage Level & Insulation level for primary wound type	12/28/95kV	12/28/95kV	12/28/95kV
4.	Frequency	50Hz	50Hz	50Hz

5.	Phase Displacement	None	N/A	N/A
6.	KpV		180 Volt	
8.	STC	25kA/3SEC	25kA/3SEC	25kA/3SEC

Table 13: 12kV Equipment

ITEM	USE	RATIO	CLASS	BUS BAR FITTED?	DELIVERY TIME IN WEEKS
1	Metering	60-30/5	0,5	400Amp straight bus bar with 10mm holes	
2	Metering	100-50/5	0,5	400Amp straight bus bar with 10mm holes	
3	Metering	300-200-100/5	0,5	No – ring type	
4	Metering	600-400-200/5	0,5	No – ring type	
5	Metering	600-400-200/5	0,2	No – ring type	
6	Protection	400/5	10P 10	No – ring type	
7	Protection	400/5	X	No – ring type	
8	Protection	1200/5	10P 10	No – ring type	
9	Protection	1200/5	10P 10	No – ring type	
10	Protection	1800/5	10P 10	No – ring type	
11	Protection	1800/5	10P 10	No – ring type	
14	Protection	400/1	10P 10	No – ring type	
15	Protection	400/1	X	No – ring type	
16	Protection	1200/1	10P 10	No – ring type	
17	Protection	1800/1	10P 10	No – ring type	
18	Protection	1200/1	X	No – ring type	
19	Protection	1800/1	X	No – ring type	
20	Dual CT Protection	1200/1 1200/1	10P 10 Class X	1400Amp straight bus bar with 10mm holes	
21	Dual CT Protection	1600/1 1600/1	10P 10 Class X	1800Amp straight bus bar with 10mm holes	

22	Dual CT Protection	1200/1 1200/1	10P 10 Class X	1400Amp 90 degree bend bus bar with 10mm holes (P1 side)	
23	Dual CT Protection	1600/1 1600/1	10P 10 Class X	1800Amp 90 degree bend bus bar with 10mm holes (P1 side)	

5.12 CURRENT TRANSFORMERS FOR USE ON MEDIUM VOLTAGE (36kV) SYSTEM

5.12.1 NB: Ring type current transformers to be supplied without bus bars.

All current transformers to be fitted with flat bottom mounting brackets with four 10mm dia slotted holes. Ring type CT'S inside diameter to be at least 65mm.

Outside diameter not to exceed 165mm and the height is not to exceed 200mm.

One additional set of rating plates (stickers) must be supplied with each current transformer, temporarily affixed to it. Current transformers must comply with BS 7626, IEC60044-1 and IEC 61869-2.

Table 14: 36kV Equipment

ITEM	RATIO	VA	CLASS	KPV	IM(A)	R(OHM)	DELIVERY TIME IN WEEKS
21	300/1	10	5P10	150	0.080	2.500	
	300/1		PX			2.200	
22	200-800-1200/1	10	0.5/0.2	250	0.100	3.0	
	200-800-1200/1		PX			3.0	

Name of manufacturer : _____

% local content : _____%

Comply with BS 7626, IEC60044-1: yes/no _____

Accuracy class of test

Instrumentation equipment used : _____

Make and model of test

Equipment used : _____

Delivery period : _____

Bulk discount for ordering 12

or more of an item : _____ %

7.13 PLASTIC SEALS AND SEALING WIRE PLUS STEEL SEALING FERRULES AND STEEL WIRE

7.13.1 All seals shall be suitable for sealing off house service meters and circuit breakers. Plastic seals shall be of the round type with a minimum outside diameter of 10mm (to be supplied with suitable wire). Steel Ferrules shall be of the 6mm non-chamfered type for using with heavy duty sealing pliers and suitable steel wire.

Table 15: Ferrules and Sealing Wire

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
1.	A - Narrow tail seal of nylon with metal insert in locking chamber. Small round head with laser printing. Stock printed ICS and serially numbered in the following colors: yellow, green, blue, red, orange and white. (per pkt of 500)		
	B – 6mm ² Steel Ferrules (per pkt of 100)		
	C – 6mm ² Tinned Copper Ferrules (per pkt of 100)		

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
	D - Steel wire for (C) - single core corrugated bright steel wire - 150mm lengths (per bundle)		
	Qty per bundle (100 per bundle preferred)		

7.14 FUSE UNITS 3 PHASE 4 WIRE HRC / LOW VOLTAGE

7.14.1 These shall be of the existing "Henley" type vertically mounted in-line fuse units without the neutral link at the bottom and 3 phase mountings with knife blade terminals capable of accommodation slotted tag type HRC fuses of the following center to center sizes:

Table 16: Fuse Units

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
1.	76mm Centres up to 200 amp rating		
2.	83mm Centres up to 400 amp rating		
3.	92mm Centres up to 600 amp rating		

7.15 FUSE CARRIERS FOR SLOTTED TAG TYPE HRC FUSES

7.15.1 These shall be wedge type carriers with thumb screw fasteners to take double slotted tag HRC fuses with fixing centers as detailed below and suitable for fitting on the existing "Henley" type fuse units described under item 15 above.

Table 17: Fuse Carriers

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS

1.	76mm Centres up to 200 Amp rating		
2.	83mm Centres up to 400 Amp rating		
3.	92mm Centres up to 600 Amp rating		

7.16 FUSES HRC SLOTTED TAG TYPE / LOW TENSION

7.16.1 These shall be suitable to fit fuse carriers as per Centlec standards and specifications

Table 18: HRC Fuses

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
A	76mm Centres 100 Amp		
B	83mm Centres 100 Amp		
C	76mm Centres 150 Amp		
D	76mm Centres 200 Amp		
E	83mm Centres 200 Amp		
F	92mm Centres 200 Amp		
G	76mm Centres 250 Amp		
H	83mm Centres 250 Amp		
I	83mm Centres 300 Amp		
J	92mm Centres 300 Amp		
k	83mm Centres 400 Amp		
l	92mm Centres 400 Amp		
m	92mm Centres 500 Amp		
n	92mm Centres 600 Amp		

Table 19: PT FUSES – BLADE TYPE

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
1.	PT Fuse unit 6A – surface mount front connection		
2.	PT Fuse unit 6A – surface mount rear connection studs		
3.	PT 6A Fuses – 10 per box		

7.17 LOW VOLTAGE DISTRIBUTION BOARDS

7.17.1 Specification: This Specification details the requirements for indoor low-voltage (LV) distribution fuse assemblies for use in electricity distribution substations, which supply power cables at low voltage. (220 / 400 Volts)

7.17.2 LV assemblies as detailed in this specification are suitable for use with transformers up to and including 500KVA for a type "A" distribution assembly, and for use with transformers up to and including 1000KVA for a type "B" distribution assembly.

7.17.3 The LV assemblies shall be suitable for use on 3 Phase, 4 wire, separate neutral and earth, AC systems at a frequency of 50Hz and at a nominal voltage of 400 V between phases and the assembly must comply with the specifications as mentioned.

7.18 References

7.18.1 This Standard refers to, or should be read in conjunction with, the following documents:

- 7.18.1.1 SANS IEC 60269 Low-voltage fuses Part 1 General requirements & Part 2
- 7.18.1.2 Part 2-1 Supplementary requirements for fuses for use by authorised persons (fuses mainly for industrial applications)
- 7.18.1.3 Supplementary requirements for fuses for use by authorised persons (fuses mainly for industrial applications)
- 7.18.1.4 SANS IEC 60439 Low-voltage switchgear and control gear assemblies
- 7.18.1.5 Type tested and partially type tested assemblies
- 7.18.1.6 SANS IEC 60529 Degrees of protection provided by enclosures (IP code)

- 7.18.1.7 IEC 60269 Low-voltage fuses
- 7.18.1.8 General requirements
- 7.18.1.9 Supplementary requirements for fuses for use by authorised persons (fuses mainly for industrial applications)
- 7.18.1.10 Section VI gU fuse-links with wedge tightening contacts*
- 7.18.1.11 IEC 60695-11-10 Fire hazard testing – Test flames – 50W horizontal and vertical test methods.
- 7.18.1.12 IEC 60898 Circuit-breakers for over current protection for household and similar installations.
- 7.18.1.13 Part 1 Circuit breakers for ac. operation
- 7.18.1.13 ISO 272 Fasteners – hexagonal products – width across flats
- 7.18.1.14 ISO 2859 Part 1 Sampling schemes indexed by acceptable quality limit (AQL) for lot by lot inspection.
- 7.18.1.14 ISO 4759 Tolerances for fasteners

(* very recent addition to IEC 60269-2; fuse links are also specified in BS 88 Part 5)

7.19 Environmental conditions

- 7.19.1 The LV assemblies will be installed in the LV compartment of miniature substations. Service conditions shall be in accordance with normal service conditions as defined in clause 6 of SANS IEC 60439-1. The maximum daily average ambient temperature will not exceed 35°C.

7.20 TYPE AND DESIGN

7.20.1 Type "A" LV assemblies shall consist of:

7.20.1.1 1 - Mounting frame

7.20.1.2 1 - Set of 800A, triple pole and half size neutral busbars

7.20.1.3 1 - Earth bar extending the full length of the frame

7.20.1.4 1 - Set of 800A, triple pole and half size neutral incoming connections.

7.20.1.5 8 - 400A fuse distributor units.

7.20.1.6 1 - Lighting distribution board

7.20.1.7 1 - 16A Socket outlet

7.20.1.8 1 - Instrument panel

7.20.2 Type "B" LV assemblies shall consist of:

7.20.2.1 1 - A mounting frame

7.20.2.2 1 - Set of 1600A, triple pole and half size neutral busbars

7.20.2.3 1 - Earth bar extending the full length of the frame

7.20.2.4 1 - Set of 1600A, triple pole and half size neutral incoming connections.

7.20.2.5 8 - 4 x 600A fuse distributor units.

7.20.2.6 1 - Lighting distribution board

7.20.2.7 1 – 16A Socket outlet

7.20.2.8 1 - Instrument panel

7.20.3 The LV assembly shall comply with SANS IEC 60439-1 and the following.

7.20.3.1 Assemblies shall be suitable for mounting into the LV compartment of a Miniature substation kiosk. The incoming circuit shall be positioned at the rear of the assembly and at the right-hand side close to the transformer LV terminals. No main circuit breaker shall be installed at the transformer LV terminals unless specifically required and specified by the client. Distributor units shall be mounted side by side. The spacing between the centres of fused distributor units shall be 120 +/- 5mm.

7.20.3.2 The LV assembly shall be arranged to suit outgoing distributor unit cables approaching from below. Incoming cables from the transformer will approach from the right-hand rear from behind the assembly.

7.20.3.3 The design of all assembly shall be such that the outgoing distributor unit cables can be readily jointed from the front.

7.20.4 A channel (Unistrut or equal with open side facing upwards) shall be provided to support outgoing cables. The channel shall be positioned approximately 50mm above floor or plinth level, towards the rear and extend the full length of the assembly. Cable cleats (± 62 mm DIA) provided by the successful bidder will be attached to the channel and support the incoming and outgoing cables.

7.20.5 Insulating materials shall be high quality, flame retardant and as nearly non-hygroscopic and resistant to tracking as good manufacturing techniques permit.

- 7.20.6 The main current carrying components (other than those made of aluminium or aluminium alloy) shall be electro-tin or electro-silver plated. All fastenings, nuts bolts etc. shall be electro-zinc plated and passivated and shall have corrosion-proof locking features.
- 7.20.7 All parts of the distribution equipment shall, as far as practicable, be readily accessible and replaceable without excessive dismantling.
- 7.20.8 All parts of equal size and rating shall be inter-changeable. The general design shall be such that the number of joints shall be kept to a minimum.
- 7.20.9 The minimum rated operational/insulation voltage (U_e/U_i) shall be 400/440V respectively. The rated impulse withstand voltage shall be 8kV.

7.21 Mounting frame

- 7.21.1 The mounting frame shall be fabricated from mild steel and be of a robust construction. The frame shall provide adequate support for the incoming circuit, busbars and distributor units. It shall be suitable for kiosk mounting. Adequate fixing holes shall be provided.

7.22 Busbar

- 7.22.1 Busbars shall be three phase neutral and earth and be manufactured from hard drawn high conductivity copper.
- 7.22.2 The neutral bar shall be rated at not less than half of the phase busbar rating.
- 7.22.3 The earth bar shall be capable of carrying the rated short time withstand current as specified in clause 4.9 and of a cross section as determined by SANS IEC 60439-1.
- 7.22.4 Phase and neutral busbar shall be situated at the rear of the equipment and positioned vertically above each other and in a sequence, red, yellow, blue and neutral from top to bottom. The earth bar shall be mounted, behind, and, at the same level as, the cable support cleats.

7.22.5 Phase busbars shall be colour identified in sequence from top to bottom, red, yellow, and blue. The neutral busbar shall be colour identified black and the earth busbar shall be unmarked.

7.22.6 The neutral busbar shall be connected to the earth busbar by means of a removable, bolted busbar, (capable of carrying the rated short time withstand current as specified in clause 4.9 and of a cross section as determined by SANS IEC 60439-1) and include one terminal / M12 fixing hole for each outgoing distributor unit.

7.22.7 The earth bar shall be bolted to the frame.

7.23 Incoming circuit from the transformer bushings

7.23.1 The incoming supply shall be solidly connected to the busbars.

7.23.2 For type "A" 800A Fuse boards, the incoming circuit shall cater for the connection of 4 single core cables (one per phase and neutral) up to and including 400mm², or, 7 single core cables (two per phase and one neutral) up to and including 185mm², stranded copper conductors with polymeric insulation.

7.23.2 For type B 1600A Fuse boards, the incoming circuit shall cater for the connection of 7 single core cables (two per phase and one neutral) up to and including 400mm², or, 11 single core cables (three per phase and two neutral) up to and including 185mm², stranded copper conductors with polymeric insulation.

7.23.2 Cable termination arrangements shall be suitable for compression lugs.

7.23.2 Incoming circuit-cable terminal bolts shall be M12. A plain washer and lock washer shall be provided for each cable terminal fixing. All fixing bolts, nuts and washers shall be electro-zinc plated steel.

7.23.2 One M12 earth terminal shall be provided adjacent to the incoming terminals. This shall be bonded to the earth bar with a solid copper conductor capable of carrying the rated short time withstand current as specified in clause 4.9 and of a cross section as determined by SANS IEC 60439-1.

7.23.3 Each phase of the incoming circuit of the LV assembly shall be equipped with a current transformer, ratio 800/5, class 0.5 and suitable for a burden of 5.0VA for a type "A" distribution assembly and current transformer, ratio 1600/5, class 0.5 and suitable for a burden of 5.0 VA for a type "B" assembly.

7.24 Fused distributor circuits

7.24.1 The rated normal current of an outgoing distributor unit shall be 400A.

7.24.2 Outgoing fused distributor units shall be three phase, with the neutral cable being connected directly to the neutral bus bar. Phases of fused distributor units shall be arranged vertically above each other.

7.24.3 Distributor units shall provide fuse protection as a means of isolating an outgoing circuit via, fuse links accommodated in fuse handles (see sub-clause 4.5.1). Each phase shall be independently operable. The fuse links shall be in accordance with Section V1 of IEC 69269-2-1 and have 82mm fixing centers.

7.24.4 Each phase of a fused distributor unit shall include a means of ensuring the fuse link and fuse handle are correctly aligned with the fixed contacts when closing the circuit. The design of distributor units shall ensure the fuse handle can be, inserted by hinge action pivoted on the lower contact and, withdrawn by snatch action. The contacts shall be arranged to permit contact tightening. Sufficiently good contact shall be made on insertion of the fuse handle such that current can be safely carried prior to tightening of the contact tightening thumbscrews.

7.24.4 Insulating dividing barriers shall be provided between, phase contact assemblies and, phase contacts and the neutral, such as to make it impossible to insert a fuse link between contacts of different phases or phase and neutral.

7.24.5 One set of three fuse handles shall be provided with each fuse distributor unit supplied.

- 7.24.6 Cable termination arrangements shall be suitable for accommodating up to and including 300mm² x 4 core solid aluminium and sector shaped conductor cables with polymeric insulation and will be terminated using compression lugs.
- 7.24.7 The center line of the channel for the cleats shall be not less than 450mm below the center line of the cable lug fixing for the neutral conductor.
- 7.24.8 The phase cable terminals shall be vertically above each other and adjacent to the associated outgoing fuse link contacts. Cable terminations shall permit the terminating of phase conductors whatever their lay without the need to cross cores. The fixed contacts shall be provided with two holes, rear and forward positioned, to facilitate terminating the phase conductors using a solid spacer of adequate thickness to give clearance and, an M12 bolt and full nut.
- 7.24.9 Each neutral cable core shall be terminated using a M12 x 50mm electro-zinc plated steel bolt, washer, lock washer and nut.
- 7.24.10 Individual cable earths will be terminated on the earth bar using M8 nuts and bolts.
- 7.24.11 A plain washer and lock washer shall be provided for each cable terminal fixing.
- 7.24.12 It shall be possible with ease to fit a current transformer with metering accuracy, of a design supplied by the manufacturer, to all phases of the outgoing distributor unit.
- 7.24.13 Protection in accordance with IP 2X shall be provided with all fuse links/handles in position. In addition, suitable insulated contact covers shall be provided to restore the same level of protection when the fuse links/handles are removed. With neither, fuse handles nor contact covers in place, maintenance of IP 2X is not mandatory but the design shall be such that it minimizes the possibility of inadvertent touching of live metal by the operator.
- 7.24.14 Contact covers shall be suitable for shielding the busbar or circuit contacts. With these contact covers it shall be possible to gain access to any one cable-side contact for testing, with all busbar-side contact and the other two cable-side contacts still shielded.
- 7.24.15 Access shall be provided for the use of test probes. They shall be able to make contact with the top and bottom fuse link terminals when fuse carriers are installed and, top and bottom contacts when the fuse carrier is removed.

7.24.16 Provision shall be made on each outgoing distributor unit to affix and padlock to prevent fuse-links being installed. Where appropriate this may involve the use of a supplementary insulated device. It shall be possible to fit the device safely whilst the feeder pillar is alive and in normal service.

7.25 Fuse handles

7.25.1 Three through grip shrouded fuse handles shall be provided with each outgoing fused distributor unit.

7.25.2 The 'body' of the handle shall be moulded from glass reinforced polyester resin (DMC) insulating material.

7.25.3 Each handle shall be complete with two insulated contact tightening thumbscrews. Reasonably good contact shall be made by wedge action on inserting the fuse carrier so that current can be safely carried in the interval prior to the tightening of the contact tightening thumbscrews. Metal components within the handles shall be protected against corrosion.

7.25.4 There shall be one standard size of fuse-carriers that shall accommodate an 82mm fixing center fuse-link between the ranges of 20 – 400A as specified previously.

7.26 Fuse links

7.26.1 Fuse links for outgoing distributor units shall be of the faster acting type specifically designed for electrical distribution networks. They shall be type gU with wedge

tightening contacts in accordance with IEC 60269-2-1 Section VI. Fuse links shall have 82mm fixing centres. The successful bidder shall supply the fuse links.

7.27 Street lighting distribution sub board

7.27.1 The three phases and neutral, street lighting distribution board shall comprise:

- 7.27.1.1 1 – Fused distributor unit with 3 x 100A fuses, size A3, fuse links in accordance with SANS IEC 60269-2-1
- 7.27.1.2 1 – 100A Triple pole isolator, 20kA
- 7.27.1.3 1 – 125A contactor with 230V coil
- 7.27.1.4 1 - Street light by-pass switch
- 7.27.1.5 1 – Ripple control relay for remote switching, relay to be supplied by the successful bidder. (Assume nominal size of 250mm x 150mm)
- 7.27.1.6 6 – 40A Type C (10kA) single pole MCB's (2 per phase) in accordance with IEC 60898-01, on outgoing street light circuits
- 7.27.1.7 4 – Neutral terminals (one for each outgoing circuit)
- 7.27.1.8 4 – Earth terminals (one for each outgoing circuit)

7.27.2 The street lighting distribution board may be mounted on, or, it may be integrated into the instrument panel, subject to suitable arrangements being made for the location and support of outgoing lighting circuit cables.

7.28 Instrument Panel

7.28.1 Each LV Assembly shall incorporate an instrument panel equipped with:

7.28.2 Three insulated thermal maximum demand indicators. The maximum demand indicators shall monitor the incoming current to the LV assembly and, be suitable for use with current transformers of ratio **800/5**, scaled 0-960A and have a 30 minute time delay for a type "A" assembly and with current transformers of ratio **1600/5**, scaled 0-1920A (2000A) and have a 30 minute time delay for a type "B" assembly.

7.29 Current Transformers

7.29.1 All current transformers shall comply with SANS IEC 60044-1.

7.30 Short circuit rating

7.30.1 The short circuit strength of the LV assemblies shall be 18.0kA for 0.5s. For a type "A" assembly and 25kA for 0.5s for a type "B" assembly.

7.31 Creepage and clearances

7.31.1 For the incoming circuit, bus bars and busbar connections to the lighting distribution board and auxiliary circuit fuse, the outgoing distributor circuits, clearance and creepage distances shall be not less than 25 mm between conductors and 19 mm from conductors to earth. Clearances and creepage distances within the lighting distribution board and auxiliary circuit shall be in accordance with SANS IEC 60439-1.

7.32 Personnel protection

7.32.1 LV assemblies shall be of the shielded type. Operator protection shall be provided in accordance with IP XXB of SANS IEC 60529 at the front, top, sides and back of the assembly. This protection shall apply in all normal service conditions including:

7.32.1.1 Fuse handles in place.

7.32.1.2 Fuse handles removed, and temporary contact covers installed.

7.32.1.2 Cabling of one outgoing circuit with the remainder live and in service.

7.33 Rating plate

7.33.1 An external data plate shall be fixed to each assembly detailing the following information:

- 7.33.1.1 Serial number, that shall be unique
- 7.33.1.2 Year of manufacture
- 7.33.1.3 Normal current rating of the phase busbar
- 7.33.1.4 Gross weight, when fully equipped (Kg)
- 7.33.1.5 Manufacturers name and reference number
- 7.33.1.6 Indicate compliance to SANS and IEC.

7.34 Circuit labels

7.34.1 Each outgoing distributor unit shall be provided with a circuit label.

7.34.2 The circuit labels shall be, 75 x 50mm, made of insulating material be mounted at the top of each circuit unit. This label shall be securely held without the use of screws and it shall be possible to slot into position and remove the label from the front of the assembly. The labels shall be suitable for engraving, by the successful bidder, with black letters on a white background.

7.35 Padlocking devices

7.35.1 One padlocking device shall be supplied with each LV assembly for locking outgoing fused distributor units in the isolated position (fuse handles removed). The successful bidder will supply safety padlocks.

7.35.2 Safety padlocks have a body up to 38mm square with a 7 mm diameter shackle having a clear inside width of 20 mm and an inside length of between 16 mm and 30 mm. The hole provided for the shackle shall be not less than 8 mm diameter.

7.35.3 Clips shall be provided inside the frame to store locking off devices when they are not in use.

7.36 Type tests

7.36.1 Evidence shall be submitted to the successful bidder to confirm that a complete LV assembly of each basic design has satisfactorily completed the type tests listed below.

7.37 Short circuit withstand strength

7.37.1 Short circuit-withstand tests in accordance with the requirements on sub clause 4.9 of this specification and sub clause 8.2.3 of SANS IEC 60439-1. The tests carried out shall include the incoming terminals, bus bars and outgoing distributor units. In the case of fused outgoing distributor units these shall fitted with 400A fuses for the test.

7.38 Temperature rise

7.38.1 Temperature rise tests shall be carried out in accordance with sub clause 8.2 of SANS IEC 60439-1 noting that:

7.38.1.1 The temporary incoming and outgoing test connection shall be cable of the type and size detailed in this specification, namely: (i) incoming circuit, one cables per phase of 400mm² stranded copper conductor cable, and (ii) fused distributor units, one cable per phase of 240mm² solid aluminium and sector shaped conductor.

7.38.1.2 Fused distributor units shall be fitted with 400A fuse links

7.38.1.3 The test shall be made with the incoming circuit carrying its rated current. Sufficient adjacent outgoing distributor units as the incoming current will permit shall be loaded to their rated current (unity diversity).

7.38.1.4 In addition to the requirements of SANS IEC 60439-1, the temperature rise of top fuse link contacts shall not exceed 65K.

7.39 Dielectric test

7.39.1 The requirements of clause 8.2.2 of SANS IEC 60439-1 apply noting that, the power frequency dielectric test (see sub-clause 8.2.2.4) shall be undertaken with the specified voltage maintained for one minute.

7.39.2 In addition the following additional tests shall be carried out.

7.40 Fuse handles (Carriers)

7.40.1 The test shall be carried out on each design of fuse carrier including its wedge mechanism.

7.40.2 The test shall be made at an ambient temperature between 15°C and 25°C.

7.40.3 The test voltage of 3.75 kV (rms) shall be applied for one minute between:

7.40.3.1 Both of the fuse carrier terminals without the fuse link being fitted.

7.40.3.2 One of the fuse carrier terminals and metal foil which is wrapped around surfaces of the insulating material of the fuse carrier, including thumbscrews, if any, which can be touched during live replacement or withdrawal of fuse carriers. For this test, a fuse link of the largest dimensions intended for the fuse carrier shall be fitted.

7.40.4 Results obtained shall be in accordance with sub-clause 8.2.2.5 of SANS IEC 60439-1.

7.40.5 Following the high voltage test, the fuse carrier shall complete a humid atmosphere test as detailed in sub-clause 8.2.4.2 of SANS IEC 60269 – Part 1, noting that, the insulation resistance at the conclusion of the test shall be measured between the points specified

for the 3.75kV test above. The insulation resistance measured shall not be less than 5 mega-ohms.

7.41 Torque test on thumbscrew shafts

7.41.1 The test shall be carried out on six random samples of the insulating thumbscrew, each complete with a wedge operating screw, to confirm the mechanical strength of the thumbscrew. Each wedge operating screw shall in turn be placed in vice and a torque applied in a clockwise direction to the insulated thumbscrew using a torque spanner adapted as necessary. Each insulated thumbscrew shall withstand a torque of 12Nm, without fracturing or turning on the shank of the wedge operating screw.

7.42 Flammability tests

7.42.1 Representative specimens of each type of insulating material used shall be subjected to a flammability test in accordance with test method A – horizontal burning test of IEC 60695-11-10.

7.42.2 Compliance is checked by inspection that each set of specimens can be classified to Category FB40 criteria a) or b) in accordance with clause 8.4.1 of IEC 60695-11-10.

7.43 Routine tests

7.43.1 Sub-clause 8.3 of SANS IEC 60439-1 is applicable together with the following additional requirements.

7.43.2 Sampling for routine tests shall be in accordance with ISO 2859-1, using a maximum acceptable quality level (normal inspection). In the event of electrical breakdown of any component on test it shall be examined for the cause of failure. In accordance with AQL in ISO 2859-1, 100% of that production batch shall be subject to routine test.

7.44 Fuse handle wedge operating mechanisms

7.44.1 Tests shall be carried out on a representative sample of wedge operating thumbscrews by subjecting them to a dielectric test. Each thumbscrew under test shall have the major

accessible portion of the insulating section encased in conducting foam. The conducting foam shall be carbon loaded and have a surface resistivity, measured on a square sample, of 1000 ohms per square.

7.44.2 A test voltage of 3.75 kV applied for one second between the metal insert of the thumbscrew and the conducting foam.

7.44.3 Results obtained shall be in accordance with sub-clause 8.3.2.3 of SANS and IEC 60439-1.

All traces of carbon must be removed after the test.

7.55 Type A - 800A low voltage distribution board

Table: 19: LV Boards (800 A)

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
1.	LV Boards (800 A)		

7.56 Type B - 1600A low voltage distribution board

Table 20: LV Boards (1600A)

ITEM	DESCRIPTION	MANUFACTURER	DELIVERY TIME IN WEEKS
1.	LV Boards (1600 A)		

7.57 HIGH VOLTAGE FUSES

7.57.1 These fuses shall be for the protection of equipment operating above 1000V AC. These shall all be fitted with a "Striker" mechanism for tripping and comply to BS 2692 Table 11.

7.57.2 **DIN FUSE LINKS** - 12kV to fit DIN 2703 fuse clip - 45mm DIA, 40 KA.

(Similar to Bussmann type DIN SDL)

Table 26: HT Fuses

ITEM	DESCRIPTION	TYPE OFFERED	DELIVERY TIME IN WEEKS
1.	36A - barrel = 51mm DIA X 292mm long		
2.	45A - barrel = 51mm DIA X 292mm long		
3.	63A - barrel = 51mm DIA X 292mm long		

7.57.3 **OIL TIGHT FUSE LINKS, TYPE OEFMA** - 12kV to fit B S fuse clips – 63.5mm DIA, 40 kA.

Table 26: Fuse Links – Type OEFMA

ITEM	DESCRIPTION	TYPE OFFERED	DELIVERY TIME IN WEEKS
1.	36A - 63.5mm DIA X 254mm barrel length		
2.	45A - 63.5mm DIA X 254mm barrel length		
3.	63A - 63.5mm DIA X 254mm barrel length		

7.57.4 **OIL TIGHT FUSE LINKS, TYPE OEGMA** - 12kV to fit B S fuse clips – 3.5mm DIA, 40 kA.

Table 26: Fuse Links – Type OEGMA

ITEM	DESCRIPTION	TYPE OFFERED	DELIVERY TIME IN WEEKS
1.	36A - 63.5mm DIA X 359mm barrel length		

2.	45A - 63.5mm DIA X 359mm barrel length		
3.	63A - 63.5mm DIA X 359mm barrel length		

7.58 COPPER BUSBAR

7.58.1 This item covers **tinted flat hard drawn copper** for making up bus bars. Weight per meter length must be stated.

Table 27: Copper Busbars

ITEM	DESCRIPTION	Kg/m	UNIT LENGTH IN m	DELIVERY TIME IN WEEKS
1.	25mm x 3.15mm not tinted		10m roll	
2.	25mm x 6mm		3m	
3.	40mm x 8mm		3m	
4.	50mm x 3mm not tinted		10m roll	
5.	50mm x 5mm tubular		3m	
6.	50mm x 6mm		3m	
7.	50mm x 10mm		3m	
8.	100mm x 10mm		3m	
9.	25mm x 3mm not tinted		10m roll	
10.	50mm x 3mm not tinted		10m roll	
11.	40mm x 10mm (flat bar round edge)		3m	
12.	50mm x 6mm		3m	
13.	50mm x 10mm		3m	
14.	100mm x 10mm		3m	

7.59 CONDUIT - 20mm, 25mm AND 32mm

7.59.1 Must be in accordance with SANS 1065/1985 and SANS 950/1985 (IEC 60614-2-2), amendments and bear the SANS mark.

Items a -c should be suitable to be used with threaded connectors and couplings.

Table 28: Conduit

ITEM	DESCRIPTION	LENGTH	DELIVERY TIME IN WEEKS
1.	Steel (black) 20mm ²		
2.	Steel (black) 25mm ²		
3.	Steel (black) 32mm ²		
4.	PVC 20mm ²		
5.	PVC 25mm ²		
6.	PVC 32mm ²		
7.	PVC 50mm ²		

7.60 PLUG TOPS 16A 250V PVC

In accordance with SANS 164: 2006 and amendments.

Table 29: Plug Tops

ITEM	DESCRIPTION	DELIVERY TIME IN WEEKS
1.	3 Pin solid (not hollow)/ Polycarbonate	
2.	3 Pin Rubber	
3.	3 Pin solid (not hollow)/ Polycarbonate – dedicated earth - red	

7.61 LAMP HOLDERS 250 V

In accordance with SANS 165: 2004 (IEC 60238 and IEC 61184) and amendments.

Table 30: Lamp Holders

ITEM	DESCRIPTION	DELIVERY TIME IN WEEKS
1.	Button holder Brass with shade-ring and 50,8mm screw-hole centers	
2	Holder brass 20mm with shade-ring	

7.62 SWITCH - SOCKETS 16 AMP 250 V 3 PIN

Sockets must be of the shuttered type and in accordance with SANS 164: 2006 and amendments.

Table 31: Sockets 16Amp

ITEM	DESCRIPTION	DELIVERY TIME IN WEEKS
1.	Ivory shrouded flush mounted switch-socket outlet combination for 100 x 50 wall box	
2.	Ivory shrouded flush mounted switch-socket outlet combination for 100 x 100 wall box	
3.	Ivory shrouded flush mounted double switch-socket outlet combination for 100 x 100 wall box	
4.	Industrial switch-socket outlet combination with rocker type toggle complete with box	
5.	Ivory shrouded flush mounted switch-socket outlet combination for 100 x 100 wall box for dedicated red cover	

7.63 TERMINAL AND CONNECTOR BLOCKS

Terminal blocks must be of the clip-on type suitable for mounting on a Din rail Ref 46277/1. Terminal blocks must be equipped with screw type terminals on both ends for conductor as specified.

Full technical information must accompany the bid.

Table 32: Terminal and Connector Blocks

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	TERMINAL BLOCKS , single way for 16mm ² stranded copper conductor		
2.	TERMINAL BLOCKS , single way for 25mm ² stranded copper conductor		
3.	TERMINAL BLOCKS , single way for 35mm ² stranded copper conductor		
4.	CONNECTOR BLOCK, 12 way /6 amp to take 2.5mm ² wire		
5.	CONNECTOR BLOCK, 12 way /16 amp to take 4mm ² wire		
6.	TEST TERMINAL BLOCKS, 13 way - 4 voltage terminals, 3 sets of current terminals with two links each, front connection terminals without connecting studs (GEC- type KP 002300)		
7.	TEST TERMINAL BLOCKS, 13 way - 4 voltage terminals, 3 sets of current terminals with two links each, with rear long connecting studs (GEC- type KP 0023008)		

7.64 PHOTO ELECTRIC CONTROL UNIT (PECU)

- DAYLIGHT SWITCHES FOR STREET LIGHTING CONTROL

7.64.1 The Photo Electric control unit shall be in accordance with NRS 025.

7.64.2 The PECU shall be designed to operate at ambient temperatures from 15°C to + 65°C and at humidity up to 91%.

7.64.3 The photo electric sensor of the PECU shall be Omni directional so that no particular orientation is required.

7.64.4 The cover and gaskets of the PECU shall be UV stabilized and shall be designed to

withstand radiation, heat, moisture, cold and compression.

- 7.64.5 The cover of the PECU shall be designed to minimize the accumulation of dust or dirt and to discourage birds for perching on it. (Conical or spherical shape)
- 7.64.6 The degree of protection provided to any part of the PECU which is exposed to the environment shall be at least IP 54 and any other part of the PECU shall be at least IP 21 in accordance with the requirements of SANS 1222.
- 7.64.7 The PECU shall be capable of operating at 230 V ± 10% at 50 Hz AC.
- 7.64.8 The PECU shall be fitted with a suitable surge suppressor to withstand an induced lightning surge.
- 7.64.9 Switching operations shall be delayed by at least 15 seconds to prevent spurious operations.
- 7.64.10 The electrical contacts of the PECU shall be able to switch a reactive load of 1 800 VA at 230 volt.
- 7.64.11 The switch-on level shall be 60 lux ± 12 Lux and the switch-off level shall not be greater than 1,5 times the switch-on level.

Table 33: PECU Specification

DETAILS OF PECU OFFERED	
Rated supply voltage	
Rated switching current at 230 V	
Switch-on level in lux	
Limitations on the use of the PECU (if any)	

Price per each:	
(1) Photo Electric Control Unit with mounting bracket and connector leads 1.5 mm ² Cu x 300mm long	
(2) Photo Electric Control Unit to fit Nema Socket - supplied without socket.	
(3) Base only: Nema Socket Base with gasket, lock ring and mounting screws.	
(4) Compact Photo Electric Control Unit to fit 22mm Diameter hole in a streetlight pole with weatherproof gaskets and lock nut complete with connection leads 1.5 mm ² Cu x 300mm long	

7.65 CONTACTORS AND RELAYS

7.65.1 THREE PHASE SURFACE MOUNTABLE CONTACTOR

- 150A (AC1), 400V contacts, with 230V, 50 Hz coil **complete with terminal covers.**

Table 33: 150A Contactor

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	150A (AC1) Contactor		

7.65.2 THREE PHASE SURFACE MOUNTABLE CONTACTOR –

100A (AC1), 400V contacts with 230V coil. (Similar to TC1 - D80)

Table 35 100A Contactor

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	100A (AC1) Contactor		

7.65.3 THREE PHASE SURFACE MOUNTABLE CONTACTOR –

32A(AC1), 400V contacts with 230V coil. (Similar to TC1 - D1810)

Table 36: 32A Contactor

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	32A (AC1) Contactor		

7.65.4 CONTROL RELAY ON 8-PIN ROUND BASE –

10A, 241V (Similar to Telemecanique RUN21D21 P7)

Table 37: 10A Control Relay

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	10 A, 241V Control Relay		

7.65.5 THREE PHASE SURFACE MOUNTABLE CONTACTOR –

200A (AC1), 400V contacts with 120DCV coil. (Similar to TC1 - D80)

Table 38: 200A Contactor

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	200A (AC1) Contactor		

7.66 PADLOCKS AND NIGHT LATCHES

7.66.1 PADLOCK SPECIFICATION FOR CENTLEC

Padlock body: Colored flame-resistant glass reinforced nylon

Dimensions: Body = 50 x 46 x 20mm, Shackle = 21 x 24mm inside dia (locked)

Colour: Cedar green or black body, external metal keyway components to be sprayed black

Shackle: 6mm dia Chrome plated hardened steel with nickel coated spring (304-grade stainless steel - DIN 17224)

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Mechanism: Dual stainless steel or electro less nickel barrel bolts,

Six pin tumbler cylinder type barrel with anti-picking mushroom pins and security plate or pin, phosphor bronze pin springs

Electro less nickel key components to be secured in position by a hidden screw under the shackle.

All moving components to be pre-lubricated with graphite powder

Marking: Stamped CENTLEC - BM 33 (or 44) on side wall

Keyed: "ABC" cascaded system with existing heavy duty Viro/Union BM 33 OR 44 key profile type, padlock currently utilized by CENTLEC

(Supply with one key, stamped BM33 or BM44 separately packed per batch)

NB. Keys must be able to also fit the old Viro locks, keyway to be altered, a sample of the lock which will be supplied by the successful bidder must be submitted for approval prior to delivery).

7.66.1.1 NIGHT LATCH SPECIFICATION

Night latch mechanism to bare the SANS mark of approval.

ABC cascading key system to be used.

Lock barrel to be profiled to take existing heavy duty Viro/Union type keys - BM 33 or BM44.

Barrel to be stamped on face side - BM 33 or BM44.

No keys to be supplied.

Table 39: Locks

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	GREEN BM33 PADLOCK		
2.	BLACK BM44 PADLOCK		
3.	RED BM22 PADLOCK		

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
4.	BM33 NIGHT LATCH (SANS MARK)		
5.	BM44 NIGHT LATCH (SANS MARK) COMPLETE WITH BARREL TO TAKE BM 44 VIRO KEY		
6.	Graphite powder to lubricate padlocks 100ml plastic bottle		

The keyway should fit existing VIRO type locks.

Keys should be manufactured with composite material (not brass)

Locks and keys should be stamped with BM number.

7.66.2 SMART ELECTRONIC LOCKS

Electronic Lock Functionality:

- Should work without a key, no dialing digit-wheels and no code-memorizing – smart operation only.
- Near Field Communication (NFC)-driven lock with multiple users for high-level security.
- Must have an audit trail of users who accessed the lock with chronological record, containing evidence of sequence of access history reporting.
- High security to prevent hacking/interception/hijacking through Over-The-Air (OTA) transmissions.
- High connection speed with negligible latency – users must be able to access locks instantly for operation i.e. unlocking and locking.
- Rugged design for outdoor and commercial use with waterproof, freeze-proof features, chackle cutting strength and corrosion resistant (Grade 6 ASTM and IP 66 rating).
- Operating parameters:
 - Temperature: -20 °C to 60 °C

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- Humidity: 20 – 90 Relative Humidity
- Lock must have multiple embedded sensors for detection and real-time remote notification capability when subjected to tampering and lock status indication.
- Lock must send alarm notifications to administrator via internet for geographical/GIS view for the location of the lock.
- Web-based software compatible with Windows and Android operating systems for the administration and management of all locks deployed.

Table 40 – Smart Electronic Lock: Security level

ITEM	DESCRIPTION	MANUFACTURER ITEM CODE	DELIVERY TIME IN WEEKS
1.	Electronic Lock - Security Level 1		
2.	Electronic Lock - Security Level 2		
3.	Electronic Lock - Security Level 3		
4.	Electronic Lock - Security Level 4		
5.	Electronic Lock - Security Level 5		

7.67: TECHNICAL SPECIFICATION FOR 25 KVA 11 000/231 VOLT, SINGLE PHASE TRANSFORMERS

Table 41 – TRANSFORMER 25kVA 1Phase 11kV

Meteorological Conditions at CENTLEC Supply Area

Climatological Data

1. Outdoor temperatures in degrees Celsius	Annual mean – 24.4 °C; Maximum = 40 °C; Minimum = -10 °C
2. Average relative humidity	At 08h00 = 76%; at 14h00 = 33%; at 20h00

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	= 48%
	Minimum = 7% and Maximum = 98%
3. Thunderstorm activity	Severe Thunderstorms

Electrical System at CENTLEC Supply Area

- a) Voltage: 11 000 /400 Volt
- b) Phases: 1
- c) Frequency : 50 Hz
- d) On the 11 kV side at the 33/11 kV distribution centres in Mangaung area, the neutral is earthed through a resistor to limit the maximum current to 600A and 300A.
- e) Phase rotation is non-standard.
- f) The load on the system consists mainly of lighting, heating and inductive loads.
- g) The two types of cable mainly used on the 11 kV network are 185mm² Al and 70 mm² Cu paper insulated cable.
- h) The insulation level for the transformers must be according to SANS 780: 2009

7.67.1 Item description of pole mounted power transformers.

25 kVA 11 000/231 Volt, single phase hermetically sealed with outdoor bushings and with provision for single pole mounting.

7.67.2 Applicable Standards

All low-loss transformers must conform to the latest requirements of NRS 054: 2002, NRS 066: 2002 and SANS 780: 2009. Copies of all test certificates must be submitted by the successful bidder with each unit delivery.

7.67.3 General Technical Requirements

7.67.4 Connecting facilities.

Bushings on the 11 kV (22kV) side of the transformer **must be of the porcelain type**, according to SANS 1037: 2001 as amended. The bushings mountings shall be of the type that permits replacement of the bushing without entering the tank and must be sealed with pure cork gaskets. (Type) Bushings must be suitable for outdoor use and transformers as specified in items 1 to 8 must be fitted with mounting brackets for JOSLYN (currently utilised by CENTLEC) Type ZHP0012 surge arresters with a minimum safety clearance of 200mm from bushing or arrester top to the mounting bracket and metal tank. On the low tension side of the transformer the bushings must be fitted on the side of the transformer with a minimum safety clearance of 60mm from bushing top to pole mount bracket. Bushings and connecting terminals shall be permanently and clearly marked each with **an individual label** (A, B, C, a, b, c and yn) fixed next to each terminal.

7.67.5 Vector Group

All single phase transformers shall have a vector group in accordance with SANS 780 section 4.14.3 viz Dyn 11.

7.67.6 Oil

- Transformer oil must comply with SANS 555: 2002 as amended. All transformers supplied must be filled with **PCB free**, grade 1 oil before being dispatched (Transformers must be labelled **PCB free**).
- Tanks must be sealed before dispatch to prevent moisture and unwanted objects from entering.
- Vacuum must be applied to all transformers during oil-filling and testing.

7.67.7 Anti-Corrosion Coating

The primer paint for the exterior surfaces of the transformer shall conform to SANS 780: 2009 for coastal protection. The final colour must be "Avocado" shade C12 in accordance with SANS 1091: 2004.

7.67.8 Transformer

The 25kVA Transformer must be for single pole mounting and supplied complete with 8mm thick V -type pole clamps with three punched holes 21mm diameter (not slotted) and two M20 x 250mm galvanised threaded rods, each with two flat washers, two spring washers and four nuts.

The transformer shall comply with all the relevant electrical requirements of SANS 780.

7.67.9 Accessories

Each transformer shall be supplied with the following accessories:

- a) Brackets shall be provided adjacent to medium-voltage bushings for mounting MV surge arresters.
- b) The transformer capacity in kVA and voltage levels must be painted in black lettering (75mm high x 50mm wide) on the front side underneath the MV bushings. Use UV stable and heat resistant paint only.
- c) Gaskets between the tank and the bushings shall be pure cork (Type TE Z1 of Cork Rite Grade or the equivalent) only. NB – There must be no rubber in the cork.

7.67.10 Drawings

Bidders must submit three (3) sets, when submitting this bid, include layout drawings depicting all elevations and main dimensions.

7.67.11 Guarantee

The successful bidder must submit a written guarantee from the manufacturer that would cover all parts of the transformer that may fail either mechanically or electrically due to faulty design, bad workmanship or material for a period of twelve months without any cost to CENTLEC.

7.67.12 Testing

All transformers shall be tested in accordance with the relevant SANS specification and three (3) signed copies of the complete test report, must accompany the transformers at delivery.

7.67.15 Schedules for Pole Mounting Power Transformers

Index to the schedules

7.67.15.1 SCHEDULE NO 1 : POWER TRANSFORMER SPECIFICATIONS

7.67.15.2 SCHEDULE NO 2 : BUSHING SPECIFICATIONS

7.67.15.3 SCHEDULE NO 3 : MANUFACTURING PARTICULARS

7.67.15.4 POWER TRANSFORMER SPECIFICATIONS

NO	TRANSFORMER PARTICULARS	25 kVA 1 φ 11kV
1.	Rated Power (KVA)	
2.	1.5 x Rated power per day allowed (hour/s)	
3.	No-load loss at primary voltage (W)	
4.	Operating losses: Full load PF = 1,0 Full load PF = 0,8	

NO	TRANSFORMER PARTICULARS	25 kVA 1 φ 11kV
5.	Temperature rise above ambient temperature at continuous full load	
6.	% Impedance at principal tap	
7.	% Efficiency: Normal operation	
	Full load PF = 1,0	
	$\frac{3}{4}$ Load PF = 1,0	
	$\frac{1}{2}$ Load PF = 1,0	
	$\frac{1}{4}$ Load PF = 1,0	
8.	Mass (kg): Core Only	
	Windings only	
	Tank only	
	Oil only	

NO	TRANSFORMER PARTICULARS	25 kVA 1 φ 11kV
	Total Mass	
9.	Sealed (0) or Air vented (X)	
10.	Volume Oil (L)	
11.	Dimensions (mm): Length (L)	
	Width (W)	
	Height (H)	
12.	Height without oil tank (mm)	
	Cooling tubes (mm)	

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NO	TRANSFORMER PARTICULARS	25 kVA 1 φ 11kV
14.	Winding material (aluminum)	

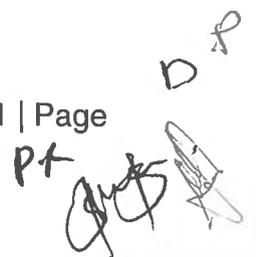
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BUSHING SPECIFICATION (PORCELAIN)

NO	TRANSFORMER PARTICULARS	25 kVA 1 φ 11kV
1.	Manufacturer	
2.	Wet flash-over value	
3.	Dry flash-over value	

MANUFACTURING PARTICULARS

NO	TRANSFORMER PARTICULARS	ITEM 8 25 kVA 1 φ 11kV
1.	Manufacturer	
2.	Place of manufacturing	
3.	Guaranteed % SA Content	

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7.68 Specification for control cables

7.68.1 Seven (7) core control cable

Pilot cables shall be for control, protection, communication and telemetry purpose. The pilot cables shall be suitable for lying with power cables.

7.68.2.1 Basic specifications

Conductor	:	7 cores x 1,5mm ² of multiple strands of differently coloured or numbered copper wires. Plain annealed copper class 2 Stranded to BS EN 60228.
Insulation	:	Thermosetting XLPE Type GP8 to BS 7655-1.3
Bedding	:	Compatible Polymeric Material (PVC)
Steel Wire Armour	:	Galvanized Steel Wire
Sheathing	:	PVC Type 9 to BS 7655-4.2

Manufactured to BS 5467

7.68.2.2 More detailed specifications

Table 42: LOW VOLTAGE CONTROL CABLES

Number of Cores	:	7
Cross Sectional Area	:	1.5 mm ²
Screened/Unscreened	:	Screened
Length	:	Standard drum length can be specified

Sheath Colour	: Black
Screen Type	: Galvanized Steel Braid
Maximum Operating Temperature	: +90°C
Core Strands	: 7/0.67 mm
Sheath Material	: Polyvinyl Chloride PVC
Voltage Rating	: 600/1000 V
Standards Met	: BASEC
Minimum Operating Temperature	: -15°C
Conductor Material	: Annealed Copper

7.69 Smart Grid Medium Voltage Sensor for Distribution Overhead Lines

General Description

Supply of Sets of Smart Sensors for monitoring Overhead Power Line grids with a voltage of up to 140kV. Each set of sensors should comprise of one (1) primary sensor that is paired and synchronized with two (2) secondary sensors. The sensors will be deployed across the 11kV, 22kV, 33kV, 44kV, 66kV, 88kV and 132kV network used. Each set of sensors should be configurable and optimized for the voltage of the Overhead Line that they will be installed on.

7.69.1. Description:

A smart sensor is a device that takes input from the physical environment and uses built-in compute resources to perform predefined functions upon detection of specific input and then process data before passing it on.

An online wireless system for medium voltage overhead lines which complements distribution management systems and provides online information about faults and grid operations. It is designed to operate in power grids with solid grounding and any other type of earthing including Petersen coil compensation.

By identifying weak spots and carrying out pre-emptive maintenance, the grid's reliability can be further improved.

The system is modular: Once sensors are deployed in a radio network, they automatically create a secured mesh network among themselves. When required, additional routers and sensors automatically and effortlessly connect to the network. The sensors report abnormal events such as surges, current/voltage drops and can be accessed at any time by the software.

The measurements of different sensors are synchronized with high precision by the radio and marked with timestamps.

The system sensors constantly measure current and electrical field and calculate the voltage and various power quality parameters. The data is transmitted periodically (e.g., every 15 minutes) to the server.

7.69.2 Applications:

- FLISR (Fault location, isolation, and service restoration)
- Grid analytics
- Power quality and flow monitoring
- Reliable online detection of all types of faults
- Reduces the average interruption duration (SAIDI)
- Reducing number of faults by identifying weak spots (SAIFI)
- Cyber security capabilities
- Algorithms to detect high impedance faults with high accuracy.
- Operates with earthing systems including solid-grounded, floating neutral, SWER and Petersen coil.
- Connection to existing DMS systems
- Provides online grid visibility of currents, power flow etc.

7.69.3 Technical Specifications:

- Inductively powered from currents as low as 1.5A in low power mode for SU (Secondary) sensors.
- Charging current from line of **5 Amps** continuously is required for full operation of GS (Primary) sensor.
- Backup batteries last for up to 3 years in low power mode
- Maintenance-free operation for more than 10 years
- Housing - Aluminium combined with glass filled polymeric material.
- IP67 rating
- Operating temperature range of - 40 °C to 70 °C
- Supports voltage from 4 kV up to 140kV.

7.69.4 Measurements:

- Load Current Up to 600A nominal
- Precision 0.5% Typical at 100A 600A
- 0.5A Typical at 20A 100A
- 0.25A Typical at 0A 20A
- 0.1A resolution at 0A 100A
- Currents and Voltages
- Power flow (real and reactive)
- Power quality
- Power factor
- Phase angle

- Zero sequence data
- Harmonics (measured up to 30th harmonic, presented: up to 5th)
- Transient events
- Arc waveforms
- Waveform Sampling 4.096ksps default, 8.192ksps Max
- Measurement interval Each 15 minutes typical (programmable)
- Phase to ground faults.
- Current changes
- Voltage changes
- Alarms Power Down
- Heavy load current
- Overload current
- LED Blinking
- Low power mode
- Phase to ground faults.
- Overload current
- LED Blinking
- Low power mode
- Wait for reset mode.
- Low backup battery
- Low Secondary Battery
- Charging from backup
- Phase synchronization 30 μ s Typical
- Sampling Buffer 8 seconds

7.69.5 Communication:

- Support IPv6 mesh Radio (6LoWPAN) and combined cellular & mesh.
- Communication range between sensors: up to 10km, can be increased to tens of km with high gain antennas.
- Supports cellular 2G/3G/4G.
- LTE-TDD B38/B40/B41
- LTE-FDD B1/B3/B5/B7/B8/B20
- UMTS/HSPA+ B1/B5/B8 (2100, 850, 900)
- GSM/GPRS/EDGE B3/B8 (1800, 900)
- 4G option "G" (Global)
- LTE-TDD B34/B38/B39/B40/B41
- LTE-FDD B1/B2/B3/B4/B5/B7/B8/B12/B13/
B18/B19/B20/B25/B26/B28/B66
- UMTS/HSPA + B1/B2/B4/B5/B6/B8/B19
- GSM/GPRS/EDGE 850/900/1800/1900 MHz

7.69.6 Installation Options and Power Line Parameters:

- Installation options Grip-all hot-stick & Insulated gloves
- Conductor diameter 6 – 29.5 mm
- Line voltage 4-140kV (phase to phase)
- Grounding options Solid Grounding, Floating grounding, compensated grounding, SWER
- Conductor external material: Aluminium (Default), Copper (C) or Insulated (I)
- Conductor temperature: 100 °C Max
- Short current 20kA (2sec) Max

7.69.7 Control Interfaces:

- Led indication Indicates communication and fault local status.
- Push button Controls power and triggers led indication.
- USB interface Control interface for configuration

7.69.8 Power Options:

- Power Feeding 1.5A for sensor (SU) in low power mode
- 3A for sensor (SU) with full functionality
- 5A for cellular sensor (GS) with full functionality
- Typical Battery Life 10-20 years
- Typical Backup time 3 years in low power mode

7.69.9 Fault Detection:

- Events detected Surge current (transient or permanent fault)
- Phase to GND fault including high impedance.
- Remote configuration Threshold levels for fault detection
- Multiple optional parameters
- Inrush current blocking time after reenergizing 3 sec (configurable)
- Adjacent conductors Indifferent to surge according to IEEE 495 4.4.8

7.69.10 Physical and Environmental:

- Chassis body dimensions: 12.1 x 14.0 x 21.3 cm / (4.76 x 44.9 x 8.39 inch)
- Antenna length 17.7 cm (6.97 inch)
- Mounting-screw length: 12.6 cm (4.96 inch)
- Weight 3.55 kg
- Casing Upper and lower covers: Aluminium,
- Body: Glass filled polymeric material Mounting Screw: Stainless Steel
- IP67
- Temperature range -40°C to +70°C

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7.69.11 **Cybersecurity:**

- Cyber Hardening End-to-end TLS/SSL, certificates enrolment, encrypted local radio communication between sensors, private APN and RADIUS, encrypted firmware upload.

7.69.12 **Software:**

- Sensors supplied must be able to interface with MetryView Software platform.
- Sensors must be able to conduct calculating within the sensor before sending data to software platform.

6. SPECIAL CONDITIONS

- 6.1. Please note that CENTLEC reserves the right to appoint more than one bidder.
- 6.2. The successful bidder will be expected to enter into a Service Level Agreement (SLA) with CENTLEC.
- 6.3. The successful bidder shall be subjected to being vetted by CENTLEC.
- 6.4. No fees shall be paid to any bidder in advance. Fees and disbursements shall be paid only for equipment delivered that complies to CENTLEC standards and billed on the agreed applicable tariff.
- 6.5. Warranty on equipment supplied will be applicable from the date items are delivered to CENTLEC as per manufacturer`s warranty period.
- 6.6. Should there be any defects identified within the set warranty period, the equipment shall be replaced at the cost of the successful bidder.

7. PRICING DATA

PRICING INSTRUCTIONS

- C2.1.1 The quantities set out in the specification provided are approximate and do not necessarily represent the actual amount of QUANTITIES / VOLUME to be supplied. The quantities of supplied and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.
- C2.1.2 The prices and rates to be inserted in the Bills of Quantities (in your bid document) are to be the full inclusive prices described under the several items. Such prices and rates shall cover all costs and expenses that may be required for the delivery of items as described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the documents on which the bid is based, as well as overhead charges and profit.
- C2.1.3 A price or rate is to be entered against each item in the Schedule/Bills of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- C2.1.4 Price to be inserted to in unit terms as stated
- C2.1.5 All quoted prices must in South African Currency (Rand)

8 PRICING SCHEDULE

Table 1: PILLAR BOXES AND PLINTHS

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Domestic pillar box (two way) and Extra covers complete (Drawing TS - 5 - 19 "Avocado green" colour)	
2.	Domestic pillar box (two way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)	
3.	Domestic pillar box (two way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)	
4.	Plinth for the two way pillar box	
5.	4-Way pillar box and Extra covers (Drawing TS - 5 - 20 "Avocado green" colour)	
6.	Domestic pillar box (4-way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)	
7.	Domestic pillar box (4-way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)	
8.	Plinth for the 4-way pillar box	
9.	6-Way pillar box and Extra covers (Drawing TS - 5 - 21 "Avocado green" colour)	
10.	Domestic pillar box (6-way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)	
11.	Domestic pillar box (6-way) backplate only (Drawing TS - 5 - 19 "Avocado green" colour)	
12.	Plinth for the 6-way pillar box	
13.	8-Way pillar box and Extra covers (Drawing TS - 5 - 21 "Avocado green" colour)	
14.	Domestic pillar box (8-way) doors only (Drawing TS - 5 - 19 "Avocado green" colour)	
15.	Domestic pillar box (8-way) backplate only	

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ITEM	DESCRIPTION	PRICE (R) PER UNIT
	(Drawing TS - 5 - 19 "Avocado green" colour)	
16.	Plinth 8-way pillar box	
17.	Stubby Box - One way (Drawing TS - 5 - 59 "Avocado green" colour) 3CR12 cover only	
18.	Plinth for the 1-way stubby box	
19.	Stubby Box - Two way (Drawing TS - 5 - 58 "Avocado green" colour) 3CR12 cover only	
20.	Plinth for the two-way stubby box	
21.	Pillow type cover for distribution box (Drawing TS - 9 - 11 "Avocado green colour") 3CR12 cover only	
22.	Pillow type distribution box cover with meter kiosk top (Drawing TS - 9 - 12 "Avocado green colour") 3CR12 cover only	
23.		
23.1	Window fitted to Item 1.5 (Size 100 x 90 x 6mm lens)	
23.2	Window fitted to Item 1.6 (Size 230 x 90 x 6mm lens)	
24.		
24.1	Lens (320 x 130 x 6mm) for Pillar box - two way - Item 1.1 (Minimum order = 100)	
24.2	Lens (100 x 90 x 6mm) for Stubby - one way - Item 1.5 (Minimum order = 100)	
24.3	Lens (230 x 90 x 6mm) for Stubby - two way - Item 1.6 (Minimum order = 100)	

Table 2: METER BOXES

ITEM	DESCRIPTION	PRICE (R) PER UNIT
2 A	Rural Meter box with V-strap brackets Drawing TS - 5 - 18	
2 B	3 Phase Rural Meter box with V-strap brackets - Drawing TS - 5 - 18 A	
2 C	Standard kVA Meter box - Drawing TS - 5 - 2 ("Avocado green" colour)	
2 D	Pole box for one single phase split pre-payment meter Drawing TS - 5 - 49 (310mm)	
2 E	Pole box for one single phase split pre-payment meter & a ripple relay Drawing TS - 5 - 49 (510mm)	
2 F	Pole box for two single phase split pre-payment meters & a ripple relay Drawing TS - 5 - 49 (805mm)	

Table 3: READY BOARDS FOR SUB-ECONOMIC HOUSING COMPLETE WITH MOUNTING BASEPLATE (AS PER ITEM 4B)

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Ready Boards	

Table 4: BASE-PLATE FOR PRE-PAID METER ONLY AS PER AMENDED DRAWING TS - 5 - 14

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Base-plate for Prepaid Meter only	

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**Table 5: BASE-PLATE FOR PRE-PAID METER AND READY BOARDS AS PER
DRAWING TS - 5 - 13**

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Base-plate for Pre-paid meter and Ready Board	

**Table 6: BASE-PLATE FOR RIPPLE RELAY (LOAD CONTROL RELAY) AS PER
DRAWING TS - 5 - 15**

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Base-plate for Ripple Relay	

Table 7: CIRCUIT BREAKERS FOR STREETLIGHTS

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Streetlight circuit breaker in a pole box with 2m long UV-stable connecting tails	
2.	Miniature Circuit Breaker, S / P, 5 Amp, 2.5kA, Std curve	
3.	Miniature Circuit Breaker, S / P, 10 Amp, 2.5kA, Std curve	
4.	PVC shroud for single miniature breaker on an adaptor plate - Similar to CBI type QA-(13)	
5.		

	Adaptor plate - Similar to CBI "S" range to type "E" clip tray - single	
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Table 8: CIRCUIT BREAKERS SINGLE POLE - 230 / 400V AC

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Circuit breaker, S / P, 2 Amp, 2.5kA, Curve 2	
2.	Circuit breaker, S / P, 5 Amp, 2.5kA, Curve 2	
3.	Circuit breaker, S / P, 10 Amp, 2.5kA, Curve 2	
4.	Circuit breaker, S / P, 15 Amp, 2.5kA, Curve 2	
5.	Circuit breaker, S / P, 20 Amp, 2.5kA, Curve 2	
6.	Circuit breaker, S / P, 30 Amp, 2.5kA, Curve 2	
7.	Circuit breaker, S / P, 30 Amp, 5kA, Curve 2	
8.	Circuit breaker, S / P, 40 Amp, 2.5kA, Curve 2	
9.	Circuit breaker, S / P, 40 Amp, 5kA, Curve 1	
10.	Circuit breaker, S / P, 50 Amp, 2.5kA, Curve 2	
11.	Circuit breaker, S / P, 60 Amp, 2.5kA, Curve 2	

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ITEM	DESCRIPTION	PRICE (R) PER UNIT
12.	Circuit breaker, S / P, 60 Amp, 5kA, Curve 1	
13.	Circuit breaker, S / P, 80 Amp, 5kA, Curve 1	
14.	Circuit breaker, S / P, 100 Amp, 5kA, Curve 1	
15.	Circuit breaker, S / P, 120 Amp, 5kA, Curve 1	
16.	Circuit breaker, S / P, 120 Amp, 5kA, Curve 2	
17.	PVC shroud for single breaker (5 kA) with surface mounting clip and sealing screws	
18.	PVC shroud for double breaker (5 kA) with surface mounting clip and sealing screws	
19.	PVC shroud for triple breaker with surface mounting clip and sealing screws	

Table 10: SP Circuit Breakers

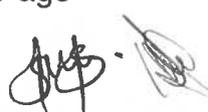
ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Circuit breaker, S / P, 2 Amp, 2.5kA, Curve 2	
2.	Circuit breaker, S / P, 5 Amp, 2.5kA, Curve 2	
3.	Circuit breaker, S / P, 10 Amp, 2.5kA, Curve 2	
4.	Circuit breaker, S / P, 15 Amp, 2.5kA, Curve 2	
5.	Circuit breaker, S / P, 20 Amp, 2.5kA, Curve 2	
6.	Circuit breaker, S / P, 30 Amp, 2.5kA, Curve 2	
7.	Circuit breaker, S / P, 30 Amp, 5kA, Curve 2	
8.	Circuit breaker, S / P, 40 Amp, 2.5kA, Curve 2	
9.	Circuit breaker, S / P, 40 Amp, 5kA, Curve 1	
10.	Circuit breaker, S / P, 50 Amp, 2.5kA, Curve 2	
11.	Circuit breaker, S / P, 60 Amp, 2.5kA, Curve 2	
12.	Circuit breaker, S / P, 60 Amp, 5kA, Curve 1	
13.	Circuit breaker, S / P, 80 Amp, 5kA, Curve 1	

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ITEM	DESCRIPTION	PRICE (R) PER UNIT
14.	Circuit breaker, S / P, 100 Amp, 5kA, Curve 1	
15.	Circuit breaker, S / P, 120 Amp, 5kA, Curve 1	
16.	Circuit breaker, S / P, 120 Amp, 5kA, Curve 2	
17.	PVC shroud for single breaker (5 kA) with surface mounting clip and sealing screws	
18.	PVC shroud for double breaker(5 kA) with surface mounting clip and sealing screws	
19.	PVC shroud for triple breaker with surface mounting clip and sealing screws	

Table 11: CIRCUIT BREAKERS 3 POLE - 400V AC

ITEM	ITEM DESCRIPTION	PRICE (R) PER UNIT
1.	(a) Circuit breaker, 3 pole, 100 amp, 15kA breaking cap. (sym) at 400 V AC	
2.	(b) Circuit breaker, 3 pole, 100 amp, 25kA breaking cap. (sym) at 400 V AC	
3.	(c) Circuit breaker, 3 pole, 125 amp, 25kA breaking cap. (sym) at 400 V AC	
4.	(d) Circuit breaker, 3 pole, 150 amp, 25kA breaking cap. (sym) at 400 V AC	
5.	(e) Circuit breaker, 3 pole, 200 amp, 25kA breaking cap. (sym) at 400 V AC	

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6.	(f) Circuit breaker, 3 pole, 250 amp, 35kA breaking cap. (sym) at 400 V AC	
7.	(g) Circuit breaker, 3 pole, 300 amp, 35kA breaking cap. (sym) at 400 V AC	
8.	(h) Circuit breaker, 3 pole, 350 amp, 35kA breaking cap. (sym) at 400 V AC	
9.	(i) Circuit breaker, 3 pole, 400 amp, 35kA breaking cap. (sym) at 400 V AC	
10.	(j) Circuit breaker, 3 pole, 500 amp, 40kA breaking cap. (sym) at 400 V AC	
11.	7k Circuit breaker, 3 pole, 630 amp, 40kA breaking cap. (sym) at 400 V AC	
12.	(l) Circuit breaker, 3 pole, 700 amp, 40kA breaking cap. (sym) at 400 V AC	
13.	(m) Circuit breaker, 3 pole, 800 amp, 40kA breaking cap. (sym) at 400 V AC	
14.	(n) Circuit breaker, 3 pole, 1000 amp, 40kA breaking cap. (sym) at 400 V AC	

ITEM	DESCRIPTION	PRICE (R) PER UNIT
15.	7a1 PVC shroud and sealing screws for the 3 pole, 100 amp, 15kA circuit breaker	
16.	7b1 PVC shroud and sealing screws for the 3 pole, 100 amp, 25kA circuit breaker	
17.	7c1 PVC shroud and sealing screws for the 3 pole, 125 amp , 25kA circuit breaker	
18.	7d1 PVC shroud and sealing screws for the 3 pole, 150 amp, 25kA circuit breaker	
19.	7e1 PVC shroud and sealing screws for the 3 pole, 200 amp, 25kA circuit breaker	
20.	7f1 PVC shroud and sealing screws for the 3 pole, 250 amp, 35kA circuit breaker	
21.	7g1 PVC shroud and sealing screws for the 3 pole, 300 amp, 35kA circuit breaker	
22.	7h1 PVC shroud and sealing screws for the 3 pole, 300 amp, 35kA circuit breaker	
23.	7i1 PVC shroud and sealing screws for the 3 pole, 400 amp, 35kA circuit breaker	

24.	7j1 PVC shroud and sealing screws for the 3 pole, 500 amp, 40kA circuit breaker	
25.	7k1 PVC shroud and sealing screws for the 3 pole, 630 amp, 40kA circuit breaker	
26.	7l1 PVC shroud and sealing screws for the 3 pole, 700 amp, 40kA circuit breaker	
27.	7m1 PVC shroud and sealing screws for the 3 pole, 800 amp, 40kA circuit breaker	
28.	7n1 PVC shroud and sealing screws for the 3 pole, 1000 amp, 40kA circuit breaker	

Table 12: ISOLATING SWITCHES 3 POLE - 230 / 400 V AC

ITEM	ITEM DESCRIPTION	PRICE (R) PER UNIT
1.	8a Isolating Switch, 1 pole, 100 amp, 10kA breaking cap. (sym) at 230 V AC - complete with shroud, clips & screws	
2.	8b Isolating Switch, 2 pole, 100 Amp, 10kA breaking cap. (sym) at 400 VAC - complete with shroud, clips & screws	
3.	8c Isolating Switch, 3 pole, 100 amp, 10kA breaking cap. (sym) at 400 V AC - complete with shroud, clips & screws	
4.	8d Isolating Switch, 3 pole, 100 amp, 20kA breaking cap. (sym) at 400 V AC - complete with shroud, clips & screws	
5.	8e Isolating Switch, 3 pole, 200 Amp, 20kA breaking cap. (sym) at 400 VAC - complete with shroud, clips & screws	
6.	8f Isolating Switch, 3 pole, 300 amp, 30kA breaking cap. (sym) at 400 V AC - complete with shroud, clips & screws	

7.	8g Isolating Switch, 2 pole, 30 amp, 5kA breaking cap. (sym) at 120V DC - complete with shroud, clips & screws	
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Table 13: RIPPLE CONTROL RECEIVER RELAYS

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Receiver with 1 x 40A contact	
2.	Receiver with 2 x 40A contacts	
3.	Receiver with 3 x 40A contacts	
4.	Receiver with 5 x 16A contacts	
5.	Receiver with 1 x 25A contact	
6.	Receiver with 2 x 25A contacts	
7.	Receiver with 3 x 25A contacts	
8.	Software program	
9.	Signal volt Meter (1050Hz)	
10.	Signal volt meter (425Hz)	
11.	Programming device	

12.	Loose Contact Assembly 25A	
13.	Loose Contact Assembly 40A	
14.	Clip in receiver 25A single pole – DIN rail	
15.	Clip in receiver 25A single pole – Samite rail	

Table 14: RING TYPE (METERING) CURRENT TRANSFORMERS (LOW TENSION)

ITEM	RATIO	PRICE (R) PER UNIT
1.	200/5	
2.	300/5	
3.	400/5	
4.	500/5	
5.	600/5	
6.	800/5	
7.	1000/5	
8.	1200/5	
9.	1500/5	

Table 15: CURRENT TRANSFORMERS FOR USE ON MEDIUM VOLTAGE (12kV) SYSTEM

ITEM 10B	RATIO	PRICE (R) PER UNIT
1	60-30/5	
2	100-50/5	
3	300-200-100/5	
4	600-400-200/5	
5	600-400-200/5	

ITEM 10B	RATIO	PRICE (R) PER UNIT
6	400/5	
7	400/5	
8	1200/5	
9	1200/5	
10	1800/5	
11	1800/5	
12	400/1	
13	400/1	
14	1200/1	
15	1800/1	
16	1200/1	
17	1800/1	
18	1200/1	
19	1600/1	
20	1200/1	
21	1600/1	

Table 16: CURRENT TRANSFORMERS FOR USE ON MEDIUM VOLTAGE (36kV) SYSTEM

Item no.10B	Ratio	VA	Class	KPV	IM(A)	R(OHM)	Price (R) per unit
1	300/1	10	5P10	150	0.080	2.500	
			PX			2.200	
2	200-800-1200/1	10	0.5/0.2	250	0.100	3.0	
			PX			3.0	

Table 17: PLASTIC SEALS AND SEALING WIRE PLUS STEEL SEALING FERRULES AND STEEL WIRE

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	A - Narrow tail seal of nylon with metal insert in locking chamber. Small round head with laser printing. Stock printed ICS and serially numbered in the following colours: yellow, green, blue, red, orange and white. (per pkt of 500)	
	B – 6mm ² Steel Ferrules (per pkt of 100)	
	C – 6mm ² Tinned Copper Ferrules (per pkt of 100)	
	D - Steel wire for (C) - single core corrugated bright steel wire - 150mm lengths (per bundle)	
	Qty per bundle (100 per bundle preferred)	

Table 17: FUSE UNITS 3 PHASE 4 WIRE HRC / LOW VOLTAGE

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	76mm Centres up to 200 Amp rating	
2.	83mm Centres up to 400 Amp rating	
3.	92mm Centres up to 600 Amp rating	
FUSE CARRIERS FOR SLOTTED TAG TYPE HRC FUSES		

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	76mm Centres up to 200 Amp rating	
2.	83mm Centres up to 400 Amp rating	
3.	92mm Centres up to 600 Amp rating	

FUSES HRC SLOTTED TAG TYPE / LOW TENSION

ITEM	DESCRIPTION	PRICE (R) PER UNIT
A	76mm Centres 100 Amp	
B	83mm Centres 100 Amp	
C	76mm Centres 150 Amp	
D	76mm Centres 200 Amp	
E	83mm Centres 200 Amp	
F	92mm Centres 200 Amp	
G	76mm Centres 250 Amp	
H	83mm Centres 250 Amp	
I	83mm Centres 300 Amp	
J	92mm Centres 300 Amp	
k	83mm Centres 400 Amp	
l	92mm Centres 400 Amp	
m	92mm Centres 500 Amp	
n	92mm Centres 600 Amp	

PT FUSES – BLADE TYPE

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	PT Fuse unit 6A – surface mount front connection	
2.	PT Fuse unit 6A – surface mount rear connection studs	
3.	PT 6A Fuses – 10 per box	

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Table 19: LOW VOLTAGE DISTRIBUTION BOARDS

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Low Voltage Distribution Boards 800A	
2.	Low Voltage Distribution Boards 1600A	

Table 20: Street lighting distribution sub board

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Street lighting distribution sub board	

Table 21: Circuit labels

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Circuit Lables	

Table 22: Padlocking devices

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Padlocking Devices	
	GREEN BM33 PADLOCK	
	BLACK BM44 PADLOCK	
	RED BM22 PADLOCK	

	BM33 NIGHT LATCH (SANS MARK)	
	BM44 NIGHT LATCH (SANS MARK) COMPLETE WITH BARREL TO TAKE BM 44 VIRO KEY	

Table 23: Routine Test

ITEM	DESCRIPTION	TYPE	PRICE (R) PER UNIT
1.	Routine Test		

Table 24: THREE PHASE SURFACE MOUNTABLE CONTACTOR – 200A (AC1), 400V contacts with 120DCV coil. (Similar to TC1 - D80)

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	THREE PHASE SURFACE MOUNTABLE CONTACTOR	

Table 25: HIGH VOLTAGE FUSES

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	36A - barrel = 51mm DIA X 292mm long	
2.	45A - barrel = 51mm DIA X 292mm long	
3.	63A - barrel = 51mm DIA X 292mm long	
4.	36A - 63.5mm DIA X 254mm barrel length	
5.	45A - 63.5mm DIA X 254mm barrel length	
6.	63A - 63.5mm DIA X 254mm barrel length	
7.	36A - 63.5mm DIA X 359mm barrel length	
8.	45A - 63.5mm DIA X 359mm barrel length	
9.	63A - 63.5mm DIA X 359mm barrel length	

Table 26: COPPER BUSBAR

ITEM	DESCRIPTION	Kg/m	UNIT LENGTH IN m	PRICE (R) PER UNIT
1.	25mm x 3.15mm not tinted		10m roll	
2.	25mm x 6mm		3m	
3.	40mm x 8mm		3m	
4.	50mm x 3mm not tinted		10m roll	
5.	50mm x 5mm tubular		3m	
6.	50mm x 6mm		3m	
7.	50mm x 10mm		3m	
8.	100mm x 10mm		3m	
9.	25mm x 3mm not tinted		10m roll	
10.	50mm x 3mm not tinted		10m roll	
11.	40mm x 10mm(flat bar round edge)		3m	
12.	50mm x 6mm		3m	
13.	50mm x 10mm		3m	
14.	100mm x 10mm		3m	

Table 27: CONDUIT - 20mm, 25mm AND 32mm

ITEM	DESCRIPTION	Unit LENGTH in m	PRICE (R) PER UNIT
1.	Steel (black) 20mm ²		
2.	Steel (black) 25mm ²		
3.	Steel (black) 32mm ²		
4.	PVC 20mm ²		
5.	PVC 25mm ²		
6.	PVC 32mm ²		
7.	PVC 50mm ²		

Table 28: PLUG TOPS 16A 250V PVC

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	3 Pin solid (not hollow)/ Polycarbonate	
2.	3 Pin Rubber	
3.	3 Pin solid (not hollow)/ Polycarbonate – dedicated earth - red	

Table 29: LAMP HOLDERS 250 V

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Button holder Brass with shade-ring and 50,8mm screw-hole centers	
2	Holder brass 20mm with shade-ring	

Table 30: SWITCH - SOCKETS 16 AMP 250 V 3 PIN

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Ivory shrouded flush mounted switch-socket outlet combination for 100 x 50 wall box	
2.	Ivory shrouded flush mounted switch-socket outlet combination for 100 x 100 wall box	
3.	Ivory shrouded flush mounted double switch-socket outlet combination for 100 x 100 wall box	
4.	Industrial switch-socket outlet combination with rocker type toggle complete with box	
5.	Ivory shrouded flush mounted switch-socket outlet combination for 100 x 100 wall box for dedicated red cover	

Table 31: TERMINAL AND CONNECTOR BLOCKS

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	TERMINAL BLOCKS , single way for 16mm ² stranded copper conductor	
2.	TERMINAL BLOCKS , single way for 25mm ² stranded copper conductor	
3.	TERMINAL BLOCKS , single way for 35mm ² stranded copper conductor	
4.	CONNECTOR BLOCK, 12 way /6 amp to take 2.5mm ² wire	
5.	CONNECTOR BLOCK, 12 way /16 amp to take 4mm ² wire	
6.	TEST TERMINAL BLOCKS, 13 way - 4 voltage terminals, 3 sets of current terminals with two links each, front connection terminals without connecting studs (GEC- type KP 002300)	
7.	TEST TERMINAL BLOCKS, 13 way - 4 voltage terminals, 3 sets of current terminals with two links each, with rear long connecting studs (GEC- type KP 0023008)	

Table 32: PHOTO ELECTRIC CONTROL UNIT (PECU)- DAYLIGHT SWITCHES FOR STREET LIGHTING CONTROL

DETAILS OF PECU OFFERED	NB: Please provide a three year pricing schedule
Rated supply voltage	_____ V
Rated switching current at 230 V	_____ A
Switch-on level in lux	

<p>Limitations on the use of the PECU (if any)</p> <p>Price per each:</p> <p>(1) Photo Electric Control Unit with mounting bracket and connector leads 1.5 mm² Cu x 300mm long</p> <p>(2) Photo Electric Control Unit to fit Nema Socket - supplied without socket.</p> <p>(3) Base only: Nema Socket Base with gasket, lock ring and mounting screws.</p>	<p>_____ L</p> <p>UX</p> <p>_____</p> <p>_____</p> <p>Manufacturer _____</p> <p>Item ref nr _____</p> <p>R _____</p> <p>Manufacturer _____</p> <p>Item ref nr _____</p> <p>R _____</p> <p>Manufacturer _____</p> <p>Item ref nr _____</p>
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1.	150A (AC1) THREE PHASE SURFACE MOUNTABLE CONTACTOR	
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Table 34: THREE PHASE SURFACE MOUNTABLE CONTACTOR – 100A (AC1), 400V contacts with 230V coil. (Similar to TC1 - D80)

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	100A (AC1) THREE PHASE SURFACE MOUNTABLE CONTACTOR	

Table 35: THREE PHASE SURFACE MOUNTABLE CONTACTOR – 32A(AC1), 400V contacts with 230V coil. (Similar to TC1 - D1810)

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	32A (AC1) THREE PHASE SURFACE MOUNTABLE CONTACTOR	

Table 36: CONTROL RELAY ON 8-PIN ROUND BASE– 10A, 241V (Similar to Telemecanique RUN21D21 P7)

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	10A CONTROL RELAY ON 8-PIN ROUND BASE	

Table 37: THREE PHASE SURFACE MOUNTABLE CONTACTOR - 200A (AC1), 400V contacts, with 230V, 50 Hz coil complete with terminal

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	200A (AC1) THREE PHASE SURFACE MOUNTABLE CONTACTOR	

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Table 38: PADLOCKS AND NIGHT LATCHES

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	PADLOCKS AND NIGHT LATCHES	

Table 39 – Smart Electronic Lock: Security level

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	Electronic Lock - Security Level 1	
2.	Electronic Lock - Security Level 2	
3.	Electronic Lock - Security Level 3	
4.	Electronic Lock - Security Level 4	
5.	Electronic Lock - Security Level 5	

Table 40: TRANSFORMER

ITEM	DESCRIPTION	PRICE (R) PER UNIT
1.	25 kVA 11 000/231 Volt, 1phase	

Table 41: LOW VOLTAGE CONTROL CABLES

ITEM	DESCRIPTION	NUMBER OF CORES	PRICE (R) PER UNIT
1.	1.50mm	7	

Table 42: SMART GRID MEDIUM VOLTAGE SENSOR

ITEM	DESCRIPTION	VOLTAGE LEVEL	PRICE (R) PER UNIT
1.	Primary Sensor	11kV	
2.	Secondary Sensor	11kV	
3.	Primary Sensor	33kV	

ITEM	DESCRIPTION	VOLTAGE LEVEL	PRICE (R) PER UNIT
4.	Secondary Sensor	33kV	
5.	Primary Sensor	132kV	
6.	Secondary Sensor	132kV	
7.	MetryView compatible Software	N/A	

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GENERAL CONDITIONS OF CONTRACT

1. Definitions

The following terms shall be interpreted as indicated:

- 1.1. "**Closing time**" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2. "**Contract**" means the written agreement entered into between the successful bidder and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3. "**Contract price**" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4. "**Corrupt practice**" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5. "**Countervailing duties**" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6. "**Country of origin**" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7. "**Day**" means calendar day.
- 1.8. "**Delivery**" means delivery in compliance of the conditions of the contract or order.
- 1.9. "**Delivery ex stock**" means immediate delivery directly from stock actually on hand.
- 1.10. "**Delivery into consignees store or to his site**" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the supplies are so delivered and a valid receipt is obtained.
- 1.11. "**Dumping**" occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- 1.12. "**Force majeure**" means an event beyond the control of the supplier and not involving the supplier's fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the successful bidder in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
- 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.
- 1.14. "**GCC**" means the General Conditions of Contract.
- 1.15. "**Goods**" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the successful bidder under the contract.
- 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 supplies covered by the bid will be manufactured.

- 1.17. "**Local content**" means that portion of the bidding price which is not included in the imported content provided that local manufacture does take place.
- 1.18. "**Manufacture**" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19. "**Order**" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20. "**Project site,**" where applicable, means the place indicated in bidding documents.
- 1.21. "**Successful bidder**" means the organization purchasing the goods.
- 1.22. "**Republic**" means the Republic of South Africa.
- 1.23. "**SCC**" means the Special Conditions of Contract.
- 1.24. "**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.
- 1.25. "**Written**" or "in writing" means handwritten in ink or any form of electronic or mechanical writing.

2. Application

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

3. General

- 3.1. Unless otherwise indicated in the bidding documents, the successful bidder shall not be liable for any expense incurred in the preparation and submission of a bid. Where applicable a non-refundable fee for documents may be charged.
- 3.2. With certain exceptions, invitations to bid are only published in the Government Bid Bulletin. The Government Bid Bulletin may be obtained directly from the Government Printer, Private Bag X85, Pretoria 0001, or accessed electronically from www.treasury.gov.za

4. Standards

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

5. Use of contract documents and information; inspection.

- 5.1. The supplier shall not, without the successful bidder'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 successful bidder 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 so far as may be necessary for purposes of such performance.
- 5.2. The supplier shall not, without the successful bidder's prior written consent, make use of any document or information mentioned in GCC clause
- 5.3. except for purposes of performing the contract.
- 5.4. Any document, other than the contract itself mentioned in GCC clause
- 5.5. shall remain the property of the successful bidder and shall be returned (all copies) to the successful bidder on completion of the supplier's performance under the contract if so required by the successful bidder.

5.6. The supplier shall permit the successful bidder to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the successful bidder, if so required by the successful bidder.

6. Patent rights

The supplier shall indemnify the successful bidder 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 successful bidder.

7. Performance security

7.1. Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the successful bidder the performance security of the amount specified in SCC.

7.2. The proceeds of the performance security shall be payable to the successful bidder as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.

7.3. The performance security shall be denominated in the currency of the contract, or in a freely convertible currency acceptable to the successful bidder and shall be in one of the following forms:

7.3.1. a bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the successful bidder's country or abroad, acceptable to the successful bidder, in the form provided in the bidding documents or another form acceptable to the successful bidder; or

7.3.2. a cashier's or certified cheque

7.4. The performance security will be discharged by the successful bidder 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 in SCC.

8. Inspections, tests and analyses

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

8.2. If it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organization acting on behalf of the Department.

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 successful bidder shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

8.4. If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the successful bidder.

8.5. Where the supplies or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such supplies or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.

8.6. Supplies and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.

8.7. Any contract supplies may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected supplies 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 supplies which do comply with the requirements of the contract. Failing such removal the rejected supplies shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute supplies forthwith, the successful bidder may, without giving the supplier further opportunity to substitute the rejected supplies, purchase such supplies as may be necessary at the expense of the supplier.

8.8. The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the successful bidder to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 23 of GCC.

9. Packing

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

10. Delivery and documents

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

11. Insurance

- 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 in the SCC.

12. Transportation

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

13. Incidental services

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

14. Spare parts

- 14.1. As specified in SCC, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- 14.1.1 such spare parts as the successful bidder 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:
- 14.1.2 Advance notification to the successful bidder of the pending termination, in sufficient time to permit the successful bidder to procure needed requirements; and
- 14.1.3 following such termination, furnishing at no cost to the successful bidder, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

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

16. Payment

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

17. Prices

- 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 in SCC or in the successful bidder's request for bid validity extension, as the case may be.

18. Contract amendments

- 18.1. No variation in or modification of the terms of the contract shall be made except by written amendment signed by the parties concerned.

19. Assignment

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

20. Subcontracts

20.1. The supplier shall notify the successful bidder 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.

21. Delays in the supplier's performance

21.1. Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the successful bidder in the contract.

21.2. If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the successful bidder 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 successful bidder shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

21.3. No provision in a contract shall be deemed to prohibit the obtaining of supplies or services from a national department, provincial department, or a local authority.

21.4. The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the supplies are required, or the supplier's services are not readily available.

21.5. Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause without the application of penalties.

21.5. Upon any delay beyond the delivery period in the case of a supplies contract, the successful bidder shall, without cancelling the contract, be entitled to purchase supplies of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

22.1. Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the successful bidder 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 successful bidder may also consider termination of the contract pursuant to GCC Clause 23

23. Termination for default

23.1. The successful bidder, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:

23.1.1 if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the successful bidder pursuant to GCC Clause 21.2;

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

23.2. In the event the successful bidder terminates the contract in whole or in part, the successful bidder 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 successful bidder for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.

- 23.3. Where the successful bidder terminates the contract in whole or in part, the successful bidder may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4. If a successful bidder 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 successful bidder may regard the intended penalty as not objected against and may impose it on the supplier.
- 23.5. Any restriction imposed on any person by the Accounting Officer / Authority will, at the discretion of the Accounting Officer / Authority, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the Accounting Officer / Authority actively associated.
- 23.6. If a restriction is imposed, the successful bidder must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- 23.6.1 the name and address of the supplier and / or person restricted by the successful bidder;
- 23.6.2 the date of commencement of the restriction
- 23.6.3 the period of restriction; and
- 23.6.4 the reasons for the restriction.

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

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

24. Anti-dumping and countervailing duties and rights

- 24.1. When, after the date of bid, provisional payments are required, or antidumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped 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 favourable difference shall on demand be paid forthwith by the contractor to the State or the State may deduct such amounts from moneys (if any) which may otherwise be due to the contractor in regard to supplies or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him

25. Force Majeure

- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

- 25.1. If a force majeure situation arises, the supplier shall promptly notify the successful bidder in writing of such condition and the cause thereof. Unless otherwise directed by the successful bidder in writing, the supplier shall continue to perform its obligations under

the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

The successful bidder 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 successful bidder.

27. Settlement of Disputes

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

28. Limitation of liability

- 28.1. Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;
 - 28.1.1 the supplier shall not be liable to the successful bidder, 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 successful bidder; and
 - 28.1.2 the aggregate liability of the supplier to the successful bidder, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

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

30. Applicable law

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

31. Notices

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

32. Taxes and duties

- 32.1. A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the successful bidder's country.
- 32.2. A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the successful bidder.
- 32.3. No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid the Department must be in possession of a tax clearance certificate, submitted by the bidder. This certificate must be an original issued by the South African Revenue Services.

33. National Industrial Participation (NIP) Programme

The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation.

34. Prohibition of Restrictive practices

- 34.1. 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 (or bid rigging).
- 34.2. If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the successful bidder, has / have engaged in the restrictive practice referred to above, the successful bidder may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in the Competition Act No. 89 of 1998.
- 34.3. If a bidder(s) or contractor(s), has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the successful bidder 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.

1. APPENDIX: STANDARD CONDITIONS OF BID

Standard Conditions of Bid

(AS PER GOVERNMENT GAZETTE NO. 29138 OF 18 AUGUST 2006)

(As contained in Annexure F of the Standard for Uniformity in Construction Procurement)

F.1 General

F.1.1 Actions

The employer and each bidder submitting a bid offer shall comply with these conditions of bid. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently.

F.1.2 Bid Documents

The documents issued by the employer for the purpose of a bid offer are listed in the bid data.

F.1.3 Interpretation

F.1.3.1 The bid data and additional requirements contained in the bid schedules that are included in the returnable documents are deemed to be part of these conditions of bid.

F.1.3.2 These conditions of bid, the bid data and bid schedules which are only required for bid evaluation purposes, shall not form part of any contract arising from the invitation to bid.

F.1.3.3 For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:

- a) **comparative offer** means the bidder's financial offer after the factors of non-firm prices, all unconditional discounts and any other bided parameters that will affect the value of the financial offer have been taken into consideration
- b) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the bid process; and
- c) **fraudulent practice** means the misrepresentation of the facts in order to influence the bid process or the award of a contract arising from a bid offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels

- d) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

F.1.4 Communication and employer's agent

Each communication between the employer and a bidder shall be to or from the employer's agent only, and in a form that can be read, copied and recorded. Writing shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a bidder. The name and contact details of the employer's agent are stated in the bid data.

F.1.5 The employer's right to accept or reject any bid offer

F.1.5.1 The employer may accept or reject any variation, deviation, bid offer, or alternative bid offer, and may cancel the bid process and reject all bid offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a bidder for such cancellation and rejection, but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a bid process or the rejection of all responsive bid offers re-issue a bid covering substantially the same scope of work within a period of six (6) months unless only one bid was received and such bid was returned unopened to the bidder.

F.2 Bidder's obligations

F.2.1 Eligibility

Submit a bid offer only if the bidder satisfies with the criteria stated in the bid data and the bidder, or any of his principals, is not under any restriction to do business with employer.

F.2.2 Cost of bidding

Accept that the employer will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

F.2.3 Check documents

Check the bid documents on receipt for completeness and notify the employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the bid. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a bid offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a bid offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the bid documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the bid documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the bid data, in order to take the addenda into account.

F.2.7 Clarification meeting

Attend, where required, a clarification meeting at which bidders may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the bid data.

F.2.8 Seek clarification

Request clarification of the bid documents, if necessary, by notifying the employer at least five working days before the closing time stated in the bid data.

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The bidder is required to seek adequate cover for covering liability that may ensue during the contract term.

F.2.10 Pricing the bid offer

F.2.10.1 Include in the rates, prices, and the bided total of the prices (if any) all duties, taxes (except Value Added Tax (VAT)), and other levies payable by the successful bidder, such duties, taxes and levies being those applicable 14 days before the closing time stated in the bid data.

F.2.10.2 Show VAT payable by the employer separately as an addition to the bided total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the bid data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Not make any alterations or additions to the bid documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the bidder. All signatories to the bid offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative bid offers

F.2.12.1 Submit alternative bid offers only if a main bid offer, strictly in accordance with all the requirements of the bid documents, is also submitted. The alternative bid offer is to be submitted with the main bid offer together with a schedule that compares the requirements of the bid documents with the alternative requirements the bidder proposes.

F.2.12.2 Accept that an alternative bid offer may be based only on the criteria stated in the bid data or criteria otherwise acceptable to the employer.

F.2.13 Submitting a bid offer

F.2.13.1 Submit a bid offer to provide the whole of the works, services or supply identified in the contract data, unless stated otherwise in the bid data.

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.

F.2.13.3 Submit the parts of the bid offer communicated on paper as an original plus the number of copies stated in the bid data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the bid offer where required in terms of the bid data. The employer will hold all authorized signatories liable on behalf of the bidder. Signatories for bidders proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the bid offer.

F.2.13.5 Seal the original and each copy of the bid offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the bid data, as well as the bidder's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the bid data, place and seal the returnable documents listed in the bid data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the bid data, as well as the bidder's name and contact address.

F.2.13.7 Seal the original bid offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the bid data.

F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the bid offer if the outer package is not sealed and marked as stated.

F.2.14 Information and data to be completed in all respects

Accept that bid offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the bid offer at the address specified in the bid data not later than the closing time stated in the bid data. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept bid offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the bid data.

F.2.15.2 Accept that, if the employer extends the closing time stated in the bid data for any reason, the requirements of these conditions of bid apply equally to the extended deadline.

F.2.16 Bid offer validity

F.2.16.1 Hold the bid offer(s) valid for acceptance by the employer at any time during the validity period stated in the bid data after the closing time stated in the bid data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the bid data for an agreed additional period.

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F.2.17 Clarification of bid offer after submission

Provide clarification of a bid offer in response to a request to do so from the employer during the evaluation of bid offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of bidders or substance of bid offer is sought, offered, or permitted.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred bidder following a competitive selection process, should the Employer elect to do so.

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the bid offer, the bidder's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the bidder not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the bid offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the bid data.

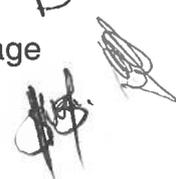
F.2.20 Submit securities, bonds, policies, etc. If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

F.2.21 Check final draft

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

F.2.22 Return of other bid documents

If so instructed by the employer, return all retained bid documents within twenty eight (28) days after the expiry of the validity period stated in the bid data.

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F.2.23 Certificates

Include in the bid submission or provide the employer with any certificates as stated in the bid data.

F.3 The employer's undertakings

F.3.1 Respond to clarification

Respond to a request for clarification received up to five working days before to the bid closing time stated in the bid data and notify all bidders who drew procurement documents.

F.3.2 Issue addenda

If necessary, issue addenda that may amend or amplify the bid documents to each bidder during the period from the date that bid documents are available until seven days before the bid closing time stated in the bid data. If, as a result a bidder applies for an extension to the closing time stated in the bid data, the employer may grant such extension and, shall then notify all bidders who drew documents.

F.3.3 Return late bid offers

Return bid offers received after the closing time stated in the bid data, unopened, (unless it is necessary to open a bid submission to obtain a forwarding address), to the bidder concerned.

F.3.5 Opening of bid submissions

F.3.5.1 Unless the two-envelope system is to be followed, open valid bid submissions in the presence of bidders' agents who choose to attend at the time and place stated in the bid data. Bid submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.5.2 Announce at the meeting held immediately after the opening of bid submissions, at a venue indicated in the bid data, the name of each bidder whose bid offer is opened, the total of his prices, preferences claimed and time for completion, if any, for the main bid offer only.

F.3.5.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.6 Two-envelope system

F.3.6.1 Where stated in the bid data that a two-envelope system is to be followed, open only the technical proposal of valid bids in the presence of bidders' agents who choose to attend at the time and place stated in the bid data and announce the name of each bidder whose technical proposal is opened.

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F.3.6.2 Evaluate the quality of the technical proposals offered by bidders, then advise bidders who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of bidders, who score in the quality evaluation more than the minimum number of points for quality stated in the bid data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to bidders whose technical proposals failed to achieve the minimum number of points for quality.

F.3.7 Non-disclosure

Not disclose to bidders, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of bid offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful bidder.

F.3.8 Grounds for rejection and disqualification

Determine whether there has been any effort by a bidder to influence the processing of bid offers and instantly disqualify a bidder (and his bid offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.9 Test for responsiveness

F.3.9.1 Determine, on opening and before detailed evaluation, whether each bid offer properly received:

- a) complies with the requirements of these Conditions of Bid,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the bid documents.

F.3.9.2 A responsive bid is one that conforms to all the terms, conditions, and specifications of the bid documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) change the Employer's or the bidder's risks and responsibilities under the contract, or
- c) affect the competitive position of other bidders presenting responsive bids, if it were to be rectified.

Reject a non-responsive bid offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.10 Arithmetical errors

F.3.10.1 Check responsive bid offers for arithmetical errors, correcting them in the following manner:

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- a) Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- b) If the bills of quantities (or schedule of quantities or schedule of rates) apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- c) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the bidder's addition of prices, the total of the prices shall govern and the bidder will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the bided total of the prices.

F.3.10.2 Consider the rejection of a bid offer if the bidder does not correct or accept the correction of his arithmetical errors in the manner described in F.3.9.1.

F.3.11 Clarification of a bid offer

Obtain clarification from a bidder on any matter that could give rise to ambiguity in a contract arising from the bid offer.

F.3.12 Evaluation of bid offers

F.3.12.1 General

Appoint an evaluation panel of not less than three persons. Reduce each responsive bid offer to a comparative offer and evaluate it using the bid evaluation method that is indicated in the bid data and described below:

Method 1: Financial offer	1)	Rank bid offers from the most favourable to the least favourable comparative offer.
	2)	Recommend highest ranked bidder for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 2: Financial offer and preferences	1)	Score bid evaluation points for financial offer.
	2)	Confirm that bidders are eligible for the preferences claimed and if so, score bid evaluation points for referencing.
	3)	Calculate total bid evaluation points.
	4)	Rank bid offers from the highest number of bid evaluation points to the lowest.
	5)	Recommend bidder with the highest number of bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 3: Financial offer and quality	1)	Score quality, rejecting all bid offers that fail to score the minimum number of points for quality stated in the Bid data.
	2)	Score bid evaluation points for financial offer.
	3)	Calculate total bid evaluation points.

Method (Continue)	3: 4)	Rank bid offers from the highest number of bid evaluation points to the lowest.
	5)	Recommend bidder with the highest number of bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 4: Financial offer, quality and preferences	1)	Score quality, rejecting all bid offers that fail to score the minimum number of points for quality stated in the Bid data.
	2)	Score bid evaluation points for financial offer.
	3)	Confirm that bidders are eligible for the preferences claimed, and if so, score bid evaluation points for referencing.
	4)	Calculate total bid evaluation points.
	5)	Rank bid offers from the highest number of bid evaluation points to the lowest.
	6)	Recommend bidder with the highest number of bid evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
	7)	Score financial offers, preferences and quality, as relevant, to two decimal places

F.3.12.2 Scoring financial offers

Score the financial offers of remaining responsive bid offers using the following formula:

$NFO = W_1 \times A$ where:

NFO = the number of bid evaluation points awarded for the financial offer.

W_1 = the maximum possible number of bid evaluation points awarded for the financial offer as stated in the bid data.

A = a number calculated using either formulas 1 below as stated in the bid data.

Formula	Basis for comparison	Option 1	Option 2
1.	Lowest price or percentage commission/fee	$\left(1 - \frac{(Pt - Pmin)}{Pmin}\right)$	P_m/P

where:

P_m = the comparative offer of the most favourable bid offer.

P = the comparative offer of bid offer under consideration.

F.3.12.3 Scoring quality (functionality)

Score quality in each of the categories in accordance with the bid data and calculate total score for quality.

F.3.13 Insurance provided by the employer

If requested by the proposed successful bidder, submit for the bidder's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

F.3.14 Acceptance of bid offer

F.3.14.1 Accept bid offer only if the bidder complies with the legal requirements stated in the bid data.

F.3.14.2 Notify the successful bidder of the employer's acceptance of his bid offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the bid data, or agreed additional period. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful bidder as described in the form of offer and acceptance.

F.3.15 Notice to unsuccessful bidders

After the successful bidder has acknowledged the employer's notice of acceptance, notify other bidders that their bid offers have not been accepted.

F.3.16 Prepare contract documents

If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the bid documents to take account of: a) addenda issued during the bid period,

- b) inclusion of some of the returnable documents,
- c) other revisions agreed between the employer and the successful bidder, and
- d) the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.17 Issue final contract

Prepare and issue the final draft of contract documents to the successful bidder for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of bid require the bidder to submit, after acceptance by the employer, shall be included.

F.3.18 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

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[Handwritten signatures and initials]

F.3.19 Provide copies of the contracts

Provide to the successful bidder the number of copies stated in the bid data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.