



**CLUSTER
TRADING SERVICES
UNIT
ELECTRICITY
DEPARTMENT
TECHNICAL SUPPORT**

**PROCUREMENT DOCUMENT
GOODS/SERVICES**

Documents are to be obtained, free of charge, in electronic format, from the [National Treasury's eTenders website](#) or the [eThekweni Municipality's website](#).

Tender No: 31333-5E

Title: SUPPLY, DELIVERY AND OFF-LOADING OF 11 kV DISTRIBUTION TRANSFORMERS DURING A 36 MONTH PERIOD

CLARIFICATION MEETING AND QUERIES

Clarification Meeting: [There will be no clarification meeting.](#)

Queries can be addressed to: Bidders are requested to submit email queries related to the bid. All email queries are to be submitted by 2025-03-27 and Email questions and answers will be consolidated and posted on eTenders/Municipal website for the benefit of all Tenderers by 2025-04-03.

General/Contractual: Nyaniso Mlilo; Tel: 031 311 9422; eMail: Nyaniso.mlilo@durban.gov.za

Technical: Yasheve Nageshar; Tel: 031 311 9633; eMail: Yasheve.nageshar@durban.gov.za

DELIVERY OF TENDERS

Sealed Tenders, addressed to the City Manager and marked with the Tender Number, are to be placed in the Tender Box [located in the ground floor foyer of the Municipal Buildings, 166 KE Masinga Road \(Old Fort Rd\), Durban](#) (and not any other municipal department), no later than:

Closing Date: [Friday, 11 April 2025](#)

Time: [11:00am](#)

FACSIMILE, eMAIL or POSTED TENDERS WILL NOT BE ACCEPTED

Issued by:

ETHEKWINI MUNICIPALITY

Deputy Head: TECHNICAL SUPPORT

Issued: [March 2025](#)

Document Version: 24/02/2023(b)

NAME OF TENDERER:

Tender Price: R

VAT Registered: YES / NO
(circle applicable)

PROCUREMENT DOCUMENT (Goods/Services)

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SECTION 1: GENERAL INFORMATION**YOU ARE HEREBY INVITED TO TENDER FOR REQUIREMENTS OF THE ETHEKWINI MUNICIPALITY**

TENDER No.: 31333-5E

DESCRIPTION: **SUPPLY, DELIVERY AND OFF-LOADING OF 11 kV DISTRIBUTION TRANSFORMERS DURING A 36 MONTH PERIOD**

CLOSING DATE / TIME: Friday, 11 April 2025 at 11:00am

All Tenders must be submitted on official Tender documentation issued (in electronic format) by the eThekwini Municipality from:

- the National Treasury's eTenders website (<https://www.etenders.gov.za/>), or
- the eThekwini Municipality's website (<https://www.durban.gov.za/pages/business/procurement>).

Electronically downloaded documentation should be printed by the Tenderer.

Tenderers are required to be registered on the **National Treasury Central Supplier Database (CSD)** as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.

Registration on the **eThekwini Municipality's Database** can be done via website: <https://ethekwinivendor.durban.gov.za/>

Tenderers should ensure that Tenders are delivered timeously to the correct address as stated in the Conditions of Tender. If a Tender is late, it will not be accepted for consideration.

The Municipality will consider a Tender submitted in response to this request for Tender to be an offer from your company to perform the supply on the basis of that Tender. Accordingly, please review the attached General and Special Terms and Conditions which will form the basis for any supply arrangement entered into between the Municipality and your company.

The Municipality is seeking tenders from potential suppliers only and makes no representation or promise in relation to procuring goods/services from a supplier or suppliers. The Municipality will not be responsible for any costs associated with preparing and submitting a Tender.

The Municipality does not bind itself to accept the lowest or any Tender. It reserves the right to accept the whole or any part of a Tender to place orders. Bidders shall not bind the Municipality to any minimum quantity per order. The successful Tenderer (s) shall be bound to provide any quantities stipulated in the specification.

The successful tenderer will be required to fill in and sign a written Contract Form (MBD 7).

NB: NO TENDER WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE
(as defined in Regulation 44 of the Local Government: Municipal Supply Chain Management Regulations).

**THE FOLLOWING PARTICULARS MUST BE FURNISHED
(Failure to do so may result in your tender being disqualified)**

Name of Tenderer:

Postal Address:

Street Address:

E-Mail Address:

Telephone Number:

-

-

Cell phone Number:

Facsimile Number:

Circle Applicable

Is your entity registered on the **eThekweni Municipality's supplier database?**

YES / NO

- **If YES insert** your PR Number:

PR

Is your entity registered on the **National Treasury Central Supplier Database (CSD)?**

YES / NO

- **If YES, insert** your MAAA Number:

MAAA

Insert a SARS Tax Compliance Status PIN

.....

Is your entity VAT registered?

YES / NO

- **If YES insert** Vat Registration Number:

.....

Has a **Declaration of Municipal Fees** been submitted?

YES / NO

Has a **Declaration of Interest** (MBD 4) been submitted?

YES / NO

Has a **Declaration for Procurement Above R10 Million** (MBD 5) been submitted?

YES / NO

Has a **Preference Points Claim** (MBD 6.1) been submitted?

YES / NO

Has a **Declaration of Bidder's Past SCM Practices** (MBD 8) been submitted?

YES / NO

Has a **Certificate of Independent Bid Determination** (MBD 9) been submitted?

YES / NO

Are you the accredited representative in South Africa for the goods / services / works offered? **If YES, enclose proof** at the back of the tender submission.

YES / NO

Signature of Tenderer: Date:

Name/Surname: (in block capitals)

Capacity under which this tender is signed:

SECTION 2 : CONDITIONS OF TENDER – (Goods / Services : June 2019)

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SPECIAL / ADDITIONAL CONDITIONS OF TENDER

STANDARD CONDITIONS OF TENDER (Goods / Services)

1. DEFINITIONS

General:

- (1) Defined words / phrases are printed in *Italic font*.
- (2) Definitions apply to the singular as well as the plural.
- (3) Any reference to the masculine gender shall be taken to include the feminine and any reference to the feminine gender shall be taken to include the masculine.
- (4) The words “bid” and “tender”, and “bidder” and “tenderer” can be used interchangeably.
- (5) All definitions as defined in the ***General Conditions of Contract*** are applicable to these ***Standard Conditions of Tender***. These definitions include:
 - “Closing time”
 - “Contract”
 - “Contract Price”
 - “Corrupt practice”
 - “Countervailing duties”
 - “Country of origin”
 - “Day”
 - “Delivery”
 - “Delivery ex stock”
 - “Delivery into consignees store or to his site”
 - “Dumping”
 - “Force majeure”
 - “Fraudulent practice”
 - “GCC”
 - “Goods”
 - “Imported content”
 - “Local content”
 - “Manufacture”
 - “Order”
 - “Project site”
 - “Purchaser”
 - “Republic”
 - “SCC”
 - “Services”
 - “Supplier”
 - “Tort”
 - “Turnkey”
 - “Written” or “in writing”
- (6) **Bid or Tender:** The offer submitted in respect of an invitation to submit such an offer.
- (7) **Bidder or Tenderer:** An entity (company, close corporation, partnership, joint venture, sole proprietor) which submits a *bid/tender*.
- (8) **Municipality:** The eThekweni Municipality, as represented by the duly authorised delegate, official or committee.
- (9) **SCT:** Special Conditions of Tender (found in Section 3).
- (10) **Week:** A period of seven (7) consecutive *days*.
- (11) **Material Deviation:** A material deviation or qualification is one which, in the *Municipality’s* opinion, would:
 - (a) Detrimentally affect the scope, quality, or performance of the services or supply identified in the Scope;
 - (b) Significantly change the *Municipality’s* or the *Tenderer’s* risks and responsibilities under the contract; or
 - (c) Affect the competitive position of other *Tenderers* presenting responsive *tenders*, if it were to be rectified.

2. CONDITIONS OF TENDER & CONTRACT

The specification will be governed by the ***Standard Conditions of Tender*** (Goods and Services), ***Special Conditions of Tender (SCT)***, ***General Conditions of Contract (GCC)*** (Government Procurement General Conditions (July 2010), as amended by National Treasury Circular 52 dated 30 July 2010), the ***Special Conditions of Contract (SCC)***, the ***Occupational Health and Safety Act*** (Act No. 85 of 1993), and the ***eThekweni Code of Conduct***.

Complete Acceptance of Conditions

Unless otherwise expressly stipulated in a letter covering the *tender*, every *Tenderer* shall be deemed to have waived, renounced, and abandoned any conditions printed or written upon any stationery used for the purpose of, or in connection with, the submission of their *tender*, which are in conflict with the ***General Conditions of Contract*** and ***Special Conditions of Contract***. *Tenderers* are advised that any *material divergences / qualifications* from the official Conditions or Specification will render their *tenders* liable to disqualification.

3. TENDER INFORMATION

- (1) **General**
 - (a) *Tenders* will be liable for rejection unless made out on the official tendering documentation.
 - (b) Any alterations effected upon any of the tendering documents must be clearly shown by means of a hand written (black, non-erasable ink), or typed, entry and must be signed in full by the *Tenderer*. **The use of correction fluid is not permitted.**
 - (c) *Tenderers* may submit alternative solutions that, in the *Tenderer’s* opinion, are to the *Municipality’s* advantage economically and technically. Full technical details of the alternative *tender(s)* shall be submitted with the tender documents. Alternative *tender(s)* shall be submitted separately.
- (2) **Obtaining Tender Documentation**

All tenders must be submitted on official tender documentation issued, in electronic format, by the eThekweni Municipality. Electronically downloaded documentation (obtainable free of charge) should be printed and suitably bound by tenderer.
- (3) **Queries Relating to this Tender**

Queries can be directed to the person / Department as stated in the ***SCT***.
- (4) **Briefing Session (Clarification Meeting)**

Details of the briefing session are stated in the ***SCT***. Failure to attend a ***compulsory*** briefing session will invalidate the *tender*. *Tenderers* must sign the attendance list in the name of the tendering entity. Tenders will only be evaluated from those tendering entities appearing on the attendance list.

(5) Closing Date and Delivery of Tender Submissions

Sealed *tenders* made out on the enclosed Official Tender Form, which shall be signed by or on behalf of the *Tenderer*, and addressed to the City Manager, marked with the appropriate Tender number, must be placed in the **Tender Box** as stated in the **SCT** not later than the **date and time** as stated in the **SCT**, where after they will be opened publicly.

All tender documents **must** be placed directly into the Tender Box and should not be delivered to any other Municipal Department. *Bidders* are advised that *tenders* submitted by post, fax or email **will not** be considered. All couriered documents must be placed directly into the Tender Box and should not be delivered to any other Municipal Department. Any *tender* received after the closing date and time stated for the receipt thereof **shall not** be accepted for consideration and shall be returned to the *Tenderer*.

(6) Tender Validity and Withdrawal of Tenders

Tenders must hold good until 16:00 of the 5th week following the date on which *tenders* are opened, or during such other period as may be specified in the **SCT**. The *Municipality* may, during the period for which *tenders* are to remain open for acceptance, authorize a *Tenderer* to withdraw their *tender* in whole or in part on condition that the *Tenderer* pays to the *Municipality* on demand, a sum of one thousand Rand (R1,000.00). The *Municipality* may, if it thinks fit, waive payment of such sum in whole or in part.

4. RETURNABLE SCHEDULES, FORMS, CERTIFICATES

Each *Tenderer* shall complete fully and accurately the following documents and submit these documents with the *tender*:

- (1) **Authority of Signatory:** In terms of Clause 4(5)(c) of the Conditions of Tender.
- (2) **Tax Compliance Status PIN / Tax Clearance Certificate:** SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.
- (3) **Declaration of Municipal Fees:** Only those *Bidders* whose municipal fees are fully paid, or those that have concluded acknowledgement of debt agreements with the *Municipality*, are eligible to *tender*.
All *Bidders* must sign the Declaration of Municipal Fees returnable form, declaring that their municipal fees are in order or that acknowledgement of debt agreements have been concluded, and include the relevant account numbers in the declaration. Failure to include account numbers or sign will invalidate the *tender*. The completion of the declaration is also applicable to *Bidders* outside of the eThekweni Municipal Area.
- (4) **Declaration with respect to the Occupational Health and Safety Act:** Acceptance of undertaking in terms of the Occupational Health and Safety Act (Act 85 of 1993) and the relevant Regulations.

(5) Municipal Bidding Documents (which includes):

- (a) **MBD 4: Declaration of Interest:** All *Bidders* are to sign the Declaration of Interest wherein they declare any relationship that may exist with an official of the *Municipality* involved in the evaluation process.
Regulation 44 of the Supply Chain Management Regulations states that a *Municipality* or *Municipal Entity* may not make any award to a person:
 - (i) Who is in the service of the state;
 - (ii) If that person is not a natural person, of which any Director, Manager, Principal, Shareholder or Stakeholder is a person in the service of the state; or
 - (iii) Who is an advisor or consultant contracted with the *Municipality* or *municipal entity*.
 Should a contract be awarded, and it is subsequently established that Regulation 44 has been breached, the *Municipality* shall have the right to terminate the contract with immediate effect.
- (b) **MBD 5: Declaration for Procurement Above R10 Million (if applicable):** For all procurement expected to exceed R10 million (all applicable taxes included), tenderers must complete this questionnaire.
- (c) **MBD 6.1: Preference Points Claim Form:** For the awarding of Preference Points, *Bidders* are required to complete the attached MBD 6.1 form and return it with their tender submission. Failure on the part of a tenderer to complete and submit this form will be interpreted to mean that preference points for **Specific Goals** are not claimed.
The *Municipality* reserves the right to require of a tenderer, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the *Municipality*.
- (d) **MBD 8: Declaration of Bidders Past Supply Chain Management Practices Form:** This form serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- (e) **MBD 9: Certificate of Independent Bid Determination:** Section 4(1)(b)(iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms if it involves collusive tendering or tender rigging. In order to give effect to this, the Certificate of Bid Determination must be completed and submitted with the tender.

(5) **Official Tender Form** (see Section 9)(a) **Legal Status of Tenderer**

It is essential for the purpose of entering into a legal contract that *Bidders* state on the Official Tender Form, under "Name and Address of Tenderer", their full legal status:

- (i) the full registered name of the company making a *tender*; or
- (ii) if the *Tenderer* is a person conducting business under a recognised trading name then:
 - State the name of the person(s);
 - State recognised trading name; and
 - State whether an owner, co-owner, proprietor, etc.

(b) **Signing of Official Tender Form**

Failure of a *Tenderer* to complete, in its entirety, and sign the Official Tender Form will invalidate the *tender*.

(c) **Authority of Signatory**

Bidders are to complete and sign the Authority of Signatory returnable document, and attach the required additional documents.

(d) **Differences or Discrepancies**

Should there be any difference or discrepancy between the prices or price contained in the Official Tender Form and those contained in any covering letter from the *Tenderer*, the prices or price contained in the Official Tender Form shall prevail.

(6) **Any additional Schedules, Forms, or Certificates as stated in the SCT.**5. **INFORMATION TO BE SUPPLIED REGARDING SUB-CONTRACTORS**

Bidders are to state in their *tenders*, or covering letters, whether, if the contract were to be awarded to them, the whole of the work would be executed by them in their own workshop / factory. If the answer is in the negative, they are required to state which part(s) would be handed to sub-contractors and the name and address of such sub-contractors.

6. **SAMPLES**

Bidders may be required to state where samples of the full range of products can be inspected or be required to submit samples for inspection prior to the closing date of the *tender*.

7. **MANUFACTURERS**

The names of the manufacturers of the goods or equipment offered must be stated in the *tender*.

Bidders who are not manufacturers, accredited distributors, or agents must provide a valid agreement / Joint Venture Agreement, entered into with the manufacturer, accredited distributors, or agents, with their submission. This agreement must meet all the requirements as laid down in the *tender* document, and must cover the contract period.

8. **CLARIFICATION**

The Head: Supply Chain Management Unit, or an authorized representative, may request clarification or further information on any aspect of the *tender*. The *Tenderer* **must** supply the requested information within the time specified. Failure to comply will render the *tender* non-responsive.

9. **PRICING**

Bidders would be precluded from this *tender* if their pricing structure deviates from the Official Tender Form.

(1) **Nett Prices**

All prices shall be quoted in South African currency (Rand) after deduction of any brokerage or discount allowed to the Municipality.

(2) **Unit Prices**

Bidders shall quote only one price in respect of each item. Such price is to hold good for the full duration of the contract period, being subject to variation only in accordance with specified criteria, as stated in the **Conditions of Contract**.

(3) **Firm Tenders**

Bidders may submit firm prices for each 12 month period. These prices shall be free from all fluctuations, including any statutory increases.

(4) **Value Added Tax (V.A.T)**

Prices exclusive and inclusive of VAT must be stated separately on the Official Tender Form.

10. **ESTIMATED QUANTITIES**

The estimated quantities are set out in Section 8 : Bill of Quantities / Schedule of Rates/Activities which forms part of the official tender documents. The quantities are stated purely for the information of the *Bidders* and are in order to ascertain an estimated total contract price. The *Supplier* will, however, be bound to supply whatever quantity or quantities the *Municipality* may actually require, and may exceed, or be less than, the estimated quantities stated.

11. **DELIVERY, RISK, PACKAGES, ETC**

- (1) Unless otherwise provided, all goods are to be supplied only against the form of order issued by the *Municipality*.
- (2) *Bidders* shall quote a unit price which shall include delivery to the specified delivery point, as stated in the **SCT**.
- (3) The risk in all goods purchased by the *Municipality* under the contract shall remain with the *Supplier* until such goods shall have been duly delivered.
- (4) *Bidders* shall clearly state the period within which delivery will be made after receipt of the official order, as this may be material in the adjudication of the *tender*.

12. RATES OF EXCHANGE

- (1) Where the goods are imported the *Supplier* shall, within seven days of date of official Purchase Order, arrange through their bankers for the foreign commitment to be covered forward down to the Rand in order to fix the rate of exchange. The *Supplier* shall notify the *Municipality* as soon as possible thereafter regarding the rate which has been fixed on such forward exchange.

Any increase or decrease between the basic rate of exchange as at a date seven days prior to the date of closing of *tenders* and that existing at the date of establishment of the forward exchange cover within the period stipulated above shall be paid or deducted by the *Municipality*. Upon the failure of the *Supplier* to arrange forward exchange cover, the *Supplier* shall be liable should there be any increase in the basic rate of exchange occurring after the last mentioned date.

The bank charges incurred in obtaining the forward exchange cover shall be for the *Municipality's* account.

- (2) The *Supplier* shall on request:
- Submit documentary proof of the rate of exchange; and
 - When an adjustment is claimed in terms of this sub-clause, whether by the *Supplier* or the *Municipality*, submit documentary proof to the satisfaction of the Deputy City Manager: Treasury in respect of such claim.

13. IMPORT PERMITS

- In order to minimise special importation, *Bidders* should, where possible, have recourse to local suppliers and / or manufacturers.
- Bidders* must state whether their *tender* is dependent upon the issue of a special import permit or whether they are able to supply the goods by making use of the import facilities available to them.
- In the event of a tender being dependent upon the issue of a special import permit, application for such special import permit shall be made by the *Tenderer*, unless otherwise provided for in the *SCT*.

14. EVALUATION PROCESS

The procedure for evaluation of responsive Tender Offers will be in accordance with the eThekweni Municipality's current SCM Policy and the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (November 2022).

Details of additional evaluation criteria, if applicable, are stated in the *SCT*.

Evaluation points for price and preference will only be calculated for *Bidders* who comply with the contractual and technical specification, and if applicable, have attained the minimum Functionality Score as stated in the *SCT*.

The evaluation process of responsive *tenders* will be as follows:

- Score each *tender* in respect of the financial offer made and preferences claimed (if any);
- Calculate the total number of evaluation points (T_{EV}) in accordance with the following formula:
 $T_{EV} = N_{FO} + N_P$ where: N_{FO} : is the number of evaluation points awarded for the financial offer; and N_P : is the number of evaluation points awarded for preferences claimed.
- Rank *tenders* from the highest number of evaluation points to the lowest.
- Recommend the *Tenderer* with the highest number of evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- Rescore and re-rank all *Bidders* should there be compelling and justifiable reasons not to recommend the *Tenderer* with the highest number of evaluation points, and recommend the *Tenderer* with the highest number of evaluation points, unless there are compelling and justifiable reasons not to do so, and the process set out in this sub-clause is repeated.

(1) Evaluation points awarded for the financial offer:

Reference is to be made to the Special Conditions of Tender (*SCT*), and returnable form 5(c) in Section 4.

INCOME-GENERATING CONTRACTS

The financial offer will be scored using the formula: N_{FO}
 $= W \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$

GOODS and SERVICES

The financial offer will be scored using the formula: N_{FO}
 $= W \left(1 - \frac{Pt - P_{min}}{P_{min}} \right)$

Where the value of W is:

- 90** where the financial value inclusive of VAT of all responsive *tenders* received have a value in excess of R 50,000,000; OR
 - 80** where the financial value inclusive of VAT of one or more responsive *tenders* offers have a value that equals or is less than R 50,000,000.
- It is unclear** (at the time of advertising) which of the two preference point systems applies. Either the 80/20 or 90/10 preference point system will apply, determined by the price offered by the lowest acceptable tender.

(b) **P_{max}** is the comparative offer of the most favourable comparative offer (highest acceptable tender).

(c) **P_{min}** is the comparative offer of the most favourable comparative offer (lowest acceptable tender).

(d) **P_t** is the comparative offer of the *tender* offer under consideration.

(2) Evaluation points awarded for preference:

The **Specific Goals** for Preference Points are specified in the *SCT*.

15. BRIBERY AND COMMUNICATION WITH COUNCILLORS / OFFICIALS**(1) Bribery**

No *Tenderer* shall offer, promise or give to any person or person connected with a *tender* or the awarding of a contract, any gratuity, bonus or discount etc, in connection with the obtaining of a contract.

(2) Communication, Councillors and Officials

A *Tenderer* shall not in any way communicate with a member of the *Municipality* or with any official of the *Municipality* on a question affecting any contract for the supply of goods or for any work, undertaking or services which is the subject of a *tender* during the period between the closing date for receipt of *tenders* and the dispatch of the written notification of the *Municipality's* decision on the award of the contract; provided that a *Tenderer* shall not hereby be precluded:

- (a) At the request of the Head: SCM Unit, or an authorized representative, from furnishing him with additional information or with a sample or specimen for testing purposes or otherwise from giving a demonstration so as to enable the recommendation to the Bid Committee on the award of the contract to be formulated;
- (b) From obtaining from the Head : SCM Unit, or an authorised representative, information as to the date upon which the award of the contract is likely to be made, or, after the decision upon the award has been made by the *Municipality* or any Committee to which the *Municipality* has delegated its powers, information as to the nature of the decision or such information as was publicly disclosed at the opening of *tenders* or from submitting to the Accounting Officer in writing any communication relating to their *tender* or the award of the contract or a request for leave to withdraw their *tender*; and
- (c) Provided further that nothing contained herein shall be construed so as to prevent information being sought and obtained from an Official in regard to any decision taken at an open Municipal meeting, or any Committee to which the *Municipality* has delegated its powers.

A contravention of subsection (1) and / or (2), or an attempt to contravene such subsection, shall be reported to the Accounting Officer, who may on receipt of such report disqualify the *tender* of the *Tenderer* concerned.

16. NEGOTIATIONS WITH PREFERRED BIDDERS

The *Municipality* reserves the right to invoke Regulation 24 of Municipal Finance Management Act if required.

- (1) The Accounting Officer may negotiate the final terms of a contract with *Bidders* identified through a competitive tendering process as preferred *Bidders*, provided that such negotiation:
 - Does not allow any preferred *Tenderer* a second or unfair opportunity;
 - Is not to the detriment of any other *Tenderer*; and
 - Does not lead to a higher price than the *tender* as submitted.
- (2) Minutes of such negotiations must be kept for record purposes.
- (3) Such negotiation may be delegated by the Accounting Officer.

17. CANCELLATION OF TENDER PROCESS

The municipality is entitled to cancel the tender at any time before the award of a tender and the decision to cancel the tender shall be published in the same manner in which the original tender invitation was advertised. The Municipality shall, in no way, be liable for any damages whatsoever, including, without limitation, damages for loss of profit, in any way connected with the cancellation of this bid.

18. ACCEPTANCE OF BID

- (1) The *Municipality* does not bind itself to accept the lowest or any *tender*, and reserves the right to accept the whole or any part of a *tender* to place orders.
- (2) The *Municipality* reserves the right to accept more than one technically and contractually compliant *tender* for part or the whole of the contract and to place orders on the price and availability.
- (3) *Bidders* shall not bind the *Municipality* to any minimum quantity per order.
- (4) The successful *Tenderer* (s) shall be bound to provide any quantities stipulated in the specification.
- (5) Tenders will only be accepted on condition that:
 - (a) The *tender* is signed by a person authorised to sign on behalf of the *Tenderer* .
 - (b) A valid (at time of close of tenders), original, Tax Clearance Certificate OR Tax Compliance Status PIN is included with the *tender* submission. Both should have sufficient validity to ensure the process is adequately covered;
 - (c) A *Tenderer* who submitted their *tender* as a Joint Venture has included an acceptable Joint Venture Agreement and a B-BBEE Certificate pertaining to the Joint Venture with their *tender*.
- (6) Financial Standing: The Head: Supply Chain Management reserves the right to require *Bidders* to submit evidence that their financial standing is adequate to meet their obligations under the contract should they be successful.
- (7) Change of Ownership or Major Policy: Where it is known to a *Tenderer* that a change in ownership or major policy (of the tendering entity) will occur, or is likely to occur, during a specified contract period, the scope and effect thereof must be fully defined in a covering letter to be submitted with the *tender*.
- (8) Purchase of Goods From Other Sources: Nothing contained in this contract shall be held to restrain the *Municipality* from purchasing from persons other than the *Supplier*, any of the goods described or referred to in this contract, if it shall in its discretion think fit to do so.
- (9) Capability and Breach of Contract: Tenderers that do not have the capability of undertaking this enquiry in terms of the requirements of the contract or have been in breach of contract previously will not be considered.

19. PAYMENT and FACTORING

Payment conditions will be as per the **Conditions of Contract**.

Payment will be made only to the *Supplier*(s). Factoring arrangements will not be accepted.

20. APPEALS

In terms of Regulation 49 of the Municipal Supply Chain Management Regulations persons aggrieved by decisions or actions taken by the *Municipality*, may lodge an appeal within 14 days of the decision or action, in writing to the *Municipality*. The appeal (clearly setting out the reasons for the appeal) and queries with regard to decision of award are to be directed to the office of the City Manager, attention:

Ms. S. Pillay, P.O. Box 1394, Durban, 4000;
eMail: Simone.Pillay@durban.gov.za.

SECTION 3: SPECIAL/ADDITIONAL CONDITIONS OF TENDER**3.1 SPECIAL CONDITIONS OF TENDER (SCT)**

The **Standard Conditions of Tender** (Goods/Services) make several references to the **Special Conditions of Tender** (SCT) for details that apply specifically to this Tender. The **SCT** shall have precedence in the interpretation of any ambiguity or inconsistency between it and the **Standard Conditions of Tender**.

Each item below is cross-referenced to the clause in the **Standard Conditions of Tender** to which it mainly applies.

SCT 3(1) TENDER INFORMATION: General

The Tender document comprises of a cover page and 82 pages.

SCT 3(2) TENDER INFORMATION: Obtaining Tender Documentation

The Tender documentation is issued by eThekweni Municipality in an electronic format. Electronically downloaded Tender documentation is obtainable from:

- the National Treasury's eTenders website
 - (<https://www.etenders.gov.za/>), or
- the eThekweni Municipality's website
 - (<https://www.durban.gov.za/pages/business/procurement>).

The entire Tender document should be printed on A4 paper (one sided), and suitably bound by the Tenderer.

SCT 3(3) TENDER INFORMATION: Queries Relating to this Tender

General and Contractual Queries are to be directed to:

Nyaniso Mlilo; Tel: 031 311 9422; eMail: Nyaniso.mlilo@durban.gov.za

Technical Queries are to be directed to:

Yasheve Nageshar; Tel: 031 311 9633; eMail: Yasheve.nageshar@durban.gov.za

SCT 3(4) TENDER INFORMATION: Briefing Session

There will be no clarification meeting.

SCT 3(5) TENDER INFORMATION: Closing Date and Delivery of Tender Submissions

Sealed Tenders, addressed to the City Manager and marked with the Tender Number, are to be placed in the Tender Box **located in the ground floor foyer of the Municipal Buildings, 166 KE Masinga Road (Old Fort Rd), Durban** (and not any other municipal department), no later than: **Friday, 11 April 2025 at 11:00am**.

Bidders are required to also make an electronic submission via SSS. Bidders must ensure that the hard copy and electronic submission are the same, failing which the submission will be deemed invalid. Bidders are responsible for resolving all access rights and submission queries before the tender closing date.

SSS Queries Contact: Lindo Dlamini: Tel: 031-3227133/031-3227153 email: supplier.selfservice@durban.gov.za

SCT 3(6) TENDER INFORMATION: Tender Validity and Withdrawal of Tenders

Tenders must hold good for 120 days following the date on which Tenders are opened.

SCT 4(6) RETURNABLE SCHEDULES, FORMS, CERTIFICATES

There are no additional returnable schedules, forms, certificates.

SCT 11(2) DELIVERY, RISK, PACKAGES, ETC

The cost of delivery and off-loading shall be amortised into the Tender price of each 11 kV distribution transformer. The 11 kV distribution transformers shall be delivered and off-loaded at eThekweni Municipality – Electricity Unit's Electrical Workshops Branch situated on 11 Electron Road (off Umgeni Road) in Springfield, Durban.

SCT 14 EVALUATION PROCESS**14.1 ELIGIBILITY, RESPONSIVENESS, PRICE AND PREFERENCE**

The procedure for the evaluation of Tender offers will be **ELIGIBILITY, RESPONSIVENESS, PRICE and PREFERENCE** in accordance with the Employer's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000) and the Preferential Procurement Policy Framework Act Regulations (2022).

14.1.1 ELIGIBILITY

- a) Tender Offers will be assessed for eligibility by making comparisons between the following:
- The "Tender Offer" and the "Conditions of Tender – Goods/Services: June 2019" detailed in **SECTION 2**;
 - The "Tender Offer" and the "Special/Additional Conditions of Tender" detailed in **SECTION 3**; and
 - The "Tender Offer" and the "General Conditions of Contract – NT Circular 52: July 2010" detailed in **SECTION 5**.
- b) Tender Offers will be assessed for eligibility by also checking that the "Tenderer's Offer" column, is fully completed, for each "Ref. No." detailed in **RETURNABLE DOCUMENTS 1 to 9 of SECTION 3**.

Tender Offers that are deemed ineligible, after undertaking the above assessments, will not be considered for the next phases of the evaluation process i.e. **RESPONSIVENESS, PRICE and PREFERENCE**.

14.1.2 RESPONSIVENESS

The eligible Tender Offers will then be assessed for responsiveness by technically evaluating the fully completed "Tenderer's Offer" against "eThekweni Electricity's Requirement" for each "Ref. No." detailed in **RETURNABLE DOCUMENTS 1 to 9 of SECTION 3**.

Tender Offers that are deemed non-responsive, after undertaking the above assessment, will not be considered for the next phases of the evaluation process i.e. **PRICE and PREFERENCE**.

14.1.3 PRICE

- The eligible and responsive Tender Offers will then be reduced to a comparative **PRICE** schedule for each item detailed in **SECTION 8: BILL OF QUANTITIES**.
- The **PRICE** utilised in the comparative **PRICE** schedule, for each item, will be the price reflected in column L of **SECTION 8: BILL OF QUANTITIES** i.e. "**Total cost of ownership (Excl. VAT)**".
- The comparative **PRICE** schedule, for each item, will be arranged in "price ascending order".
- The **Price Points (max.90)** will be calculated, for each item, by applying the **90/10** preference points system to the comparative **PRICE** schedule.

14.1.4 PREFERENCE

Since the **90/10** preference points system is applied to the comparative **PRICE** schedule, for each item, eligible and responsive Tenderer's will be awarded **Preference Points (max.10)** in accordance with the specific goals detailed in **clause 14.4** below.

14.2 The **Price Points (max.90)** and **Preference Points (max.10)**, for each item, will be added resulting in the **Total Points (max.100)**.

14.3 Tender Offers will then be ranked in descending order of **Total Points (max.100)**, for each item.

14.4 Specific Goals

The definitions as per the SCM Policy are applicable.

Preference Points (max.10) will be derived from points claimed on Returnable Document **MBD 6.1: "Preference Points Claim Form"** (in **SECTION 4** of this procurement document) for the **Specific Goal(s)** as indicated on the table(s) below, and according to the specified **Goal Weightings**.

RECONSTRUCTION AND DEVELOPMENT PROGRAM (RDP) GOALS		
RDP GOAL: OWNERSHIP GOAL		
The Tendering entity's Percentage Ownership , in terms of the Ownership Category(s) listed below, is to be used in the determination of the <u>Tenderer's claim</u> for Preference Points .		
GOAL WEIGHTING: 40 %		
Ownership Categories	Criteria	90/10
Race: Black (100 %)	0%	0
	>0% and <51%	4
	≥51% and <100%	7,5
	100%	10

SCT 14 EVALUATION PROCESS (continued)**RECONSTRUCTION AND DEVELOPMENT PROGRAM (RDP) GOALS (concluded)****RDP GOAL: OWNERSHIP GOAL**

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tendering Entity's status)

- Companies and Intellectual Property Commission (CIPC) registration document.
- Central Supplier Database (CSD) report.
- Valid Sworn Affidavit stamped, dated and signed by a commissioner of oaths.
- B-BBEE Certificate of the Tendering entity.
- Consolidated B-BBEE Certificate if the Tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System).
- Agreement for a Consortium, Joint Venture, or Trust.

The **Category Weightings** of the Ownership Categories will be: $w_1 = 100\%$, $w_2 = 0\%$, $w_3 = 0\%$ (where $x + y + z = 100\%$)

RDP GOAL: THE PROMOTION OF SOUTH AFRICAN OWNED ENTERPRISES

The Tendering entity's **Address**, in terms of the categories below, is to be used in the determination of the Tenderer's claim for **Preference Points** for this Specific Goal.

GOAL WEIGHTING: 20 %

Location	90/10
Not in South Africa	0
South Africa	7,5
KZN	9
ETM	10

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tendering Entity's status)

- CSD report

RDP Goal: The promotion of enterprises located in a specific municipal area – Covered in the above RDP Goal.

RDP GOAL: THE PROMOTION OF EXPORT-ORIENTED PRODUCTION TO CREATE JOBS

The Tendering entity's **Business Type**, in terms of the categories below, is to be used in the determination of the Tenderer's claim for **Preference Points** for this Specific Goal.

GOAL WEIGHTING: 40 %

Local content and production	90/10
Retailer	0
Distributor	0
Wholesaler	5
Manufacturer	10

Proof of claim as declared on MBD 6.1 (1 or more of the following will be used in verifying the Tendering Entity's status)

- CSD report

RDP Goal: Creation of new jobs to address black youth unemployment – Currently Not Applicable.

RDP Goal: Social Upliftment of communities – Currently Not Applicable.

RDP Goal: The promotion SMMEs owned by PPG – Contracts > R5m – Currently Not Applicable.

14.5 Total cost of ownership (TCO) details

14.5.1 The Total cost of ownership (TCO) is detailed in column L of **SECTION 8: BILL OF QUANTITIES** and is used as the basis for the awarding of **PRICE POINTS**.

14.5.2 The TCO is calculated using the following formula:

$$\text{Total cost of ownership [Rands]} = A \text{ [Rands]} + NLLF \text{ [R/kW]} \times P_{NL} \text{ [kW]} + LLF \text{ [R/kW]} \times P_{LL} \text{ [kW]} \dots\dots\dots(1)$$

where:

- A** – is the "Capital cost per unit (Excl. VAT)" in [Rands], as submitted by the Tenderer in column E of **SECTION 8: BILL OF QUANTITIES**, for each item.
- NLLF** – is the No-load loss factor in [R/kW] that is calculated using equation 2 on the next page.
- P_{NL}** – is the guaranteed No-load loss in [kW], as declared by the Tenderer in column G of **SECTION 8: BILL OF QUANTITIES**, for each item.
- LLF** – is the Load loss factor in [R/kW] that is calculated using equation 3 on the next page.
- P_{LL}** – is the guaranteed Load loss in [kW], as declared by the Tenderer in column J of **SECTION 8: BILL OF QUANTITIES**, for each item.

SCT 14 EVALUATION PROCESS (concluded)

The **NLLF** is calculated using the following formula:

$$\text{NLLF} = 12 \times (\text{MD} \times \text{PVA}_{\text{MD}}) + 8\,760 \times (\text{EC} \times \text{PVA}_{\text{EC}}) \dots\dots\dots (2)$$

where:

- MD – Maximum demand charge (purchase price of electricity)
- PVA_{MD} – Present value of annuity of the maximum demand charge
- EC – Energy charge (purchase price of electricity)
- PVA_{EC} – Present value of annuity of the energy charge

PVA – Present value of annuity (used to discount future cash flows over 25 years to present values)

The **LLF** is calculated using the following formula:

$$\text{LLF} = 12 \times (\text{MD} \times \text{K}^2 \times \text{G}^2 \times \text{PVA}_{\text{MD}}) + 8\,760 \times (\text{EC} \times \text{TLF} \times \text{G}^2 \times \text{PVA}_{\text{EC}}) \dots\dots\dots (3)$$

where:

- MD – Maximum demand charge (purchase price of electricity)
- K – Transformer peak responsibility factor (contribution of the transformer load to the system peak)
- G – Transformer peak ratio (ratio of the transformer peak load versus its rated capacity)
- PVA_{MD} – Present value of annuity of the maximum demand charge
- EC – Energy charge (purchase price of electricity)
- TLF – Transformer loss factor = $(0,8 \times \text{LF}^2) + (0,2 \times \text{LF})$
- LF – System load factor
- PVA_{EC} – Present value of annuity of the energy charge

PVA – Present value of annuity (used to discount future cash flows over 25 years to present values)

The following data was used to calculate the **NLLF** detailed in equation 2 and **LLF** detailed in equation 3:

- a) Maximum demand charge: **R 24,17/kVA**
- b) Transformer peak responsibility factor: **0,68**
- c) Transformer peak ratio: **0,68**
- d) Energy charge: **R 1,32/kWH**
- e) System load factor: **0,75**
- f) Economic life of the transformer used for the PVA: **25 years**

The **NLLF** is therefore = **98 031 R/kW** and the **LLF** is therefore = **27 045 R/kW**

The **NLLF** and **LLF** is included in equation 1 as follows:

$$\text{Total cost of ownership [Rands]} = \text{A [Rands]} + 98\,031 \text{ [R/kW]} \times \text{P}_{\text{NL}} \text{ [kW]} + 27\,045 \text{ [R/kW]} \times \text{P}_{\text{LL}} \text{ [kW]}$$

“Capital Cost per unit (Excl. VAT)”
submitted by the Tenderer in
column E of SECTION 8

No-Load Loss declared by the
Tenderer in column G of
SECTION 8: BILL OF
QUANTITIES

Load Loss declared by the
Tenderer in column J of
SECTION 8: BILL OF
QUANTITIES

3.2 **ADDITIONAL CONDITIONS OF TENDER (ACT)**

ACT 1 ELIGIBILITY – CSD REGISTRATION

Tenderers are required to be registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers not so registered, at time of closing of tenders, will not be eligible to submit Tenders.

The Tenderer's CSD Supplier Number (starting with "MAAA") is to be provided on the information table in **SECTION 1**.

Tenderers who wish to register on the CSD may do so via web address <https://secure.csd.gov.za>.

ACT 2 TECHNICAL INFORMATION

1. Tenderers shall submit, with Tender documents, the following:
 - a) full technical and descriptive information as required in the applicable clauses of **SECTION 7**;
 - b) fully completed and signed **RETURNABLE DOCUMENTS 1 to 9** of **SECTION 3**; and
 - c) **manufacturer test/design reports** detailing the guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** for each 11 kV distribution transformer detailed in **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15** of **SECTION 3**.
2. Tenderers shall ensure that the guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** in each **manufacturer test/design report** is identical to those declared in the corresponding **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15** of **SECTION 3**.
3. Tenderers shall ensure that the guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** reflecting in columns G and J, respectively, of **SECTION 8: BILL OF QUANTITIES** are identical to those declared in the corresponding **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15** of **SECTION 3**, and by inference, identical to the **no-load loss (P_{NL})** and **load loss (P_{LL})** reflecting in the respective **manufacturer test/design report** submitted.
4. The guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** for each 11 kV distribution transformer detailed in **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15** of **SECTION 3** shall not be greater than the losses detailed in **Table 2** of SANS 780:2021 for three-phase windings.

ACT 3 Tenderers shall submit sample(s) of the tendered items within seven (7) days of request by eThekweni Municipality. The delivered sample of the 11 kV distribution transformer shall be fully compliant with the technical requirements of this specification and ready for testing.

These sample(s) shall be delivered and off-loaded at eThekweni Municipality – Electricity Unit's Electrical Workshops Branch situated on 11 Electron Road (off Umgeni Road) in Springfield, Durban.

The sample(s) shall be marked for the attention of Yasheve Nageshar – Chief Engineer: Technology Services (Technical Support: Electricity Unit).

ACT 4 The sample(s) submitted by Tenderers for each requested item shall be identical to the items offered on the respective **RETURNABLE DOCUMENTS 1 to 8** of **SECTION 3** and shall be clearly labelled with the following information:

- a) Tender No.: 31333(5E);
- b) Tenderer Name;
- c) Delivery date of sample(s); and
- d) Reference to the corresponding **RETURNABLE DOCUMENT 1 to 8** of **SECTION 3**.

ACT 5 Tenderers shall bear full costs, inclusive of delivery and off-loading, of the sample(s) requested by eThekweni Municipality. EThekweni Municipality shall not be held liable for any costs incurred by the Tenderer to provide the required sample(s) within the seven (7) day timeframe.

ACT 6 EThekweni Municipality reserves the right to submit sample(s) for testing, as deemed reasonable and necessary. EThekweni Municipality may retain or return sample(s) at its discretion. In the event of sample(s) being returned, Tenderers shall collect and remove their sample(s) within one month of being notified to do so, failing which they will be deemed to have waived all rights to the sample(s) and such sample(s) not collected after one month from the date of such notification will become the property of eThekweni Municipality for disposal or use at its discretion.

3.2 **ADDITIONAL CONDITIONS OF TENDER (ACT) (concluded)**

ACT 7 TENDER AWARD

The Tender shall be awarded on a per item basis. eThekweni Municipality may accept more than one responsive Tender per item. This may include, and is not limited to, the award of Tenders where the tendered items are from different manufacturers. This may be done to mitigate the risk of supply from a single manufacturer. Orders shall be placed on the basis of price and availability.

ACT 8 ARITHMETICAL ERRORS, OMISSIONS AND DISCREPANCIES

In order to ensure transparency for all Tender Offers received, eThekweni Municipality will verify the highest ranked Tender Offer with the highest number of Tender evaluation points after the evaluation of all Tender Offers in accordance with the evaluation process. This verification will be undertaken as follows:

- a) Checking Column E of **SECTION 8: BILL OF QUANTITIES** for any gross errors;
- b) Verifying the **No-load loss (P_{NL})** values in Column G of **SECTION 8: BILL OF QUANTITIES** is identical to those declared in the corresponding **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3**;
- c) Checking arithmetic errors for Column H of **SECTION 8: BILL OF QUANTITIES** resulting from the multiplication of Column F **with** Column G;
- d) Verifying the **load loss (P_{LL})** values in Column J of **SECTION 8: BILL OF QUANTITIES** is identical to those declared in the corresponding **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3**;
- e) Checking arithmetic errors for Column K of **SECTION 8: BILL OF QUANTITIES** resulting from the multiplication of Column I **with** Column J; and
- f) Checking arithmetic errors for Column L of **SECTION 8: BILL OF QUANTITIES** resulting from the summation of Column E + Column H + Column K.

eThekweni Municipality will consider the rejection of a Tender Offer if the Tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

ACT 9 RETURNABLE DOCUMENTS AND SCHEDULES

This section contains the following documents:

- a) **RETURNABLE A** which serves for information purposes only;
- b) **RETURNABLE DOCUMENTS 1 to 9** which details the technical requirements; and
- c) **DELIVERY PERIODS SCHEDULE** which details eThekweni Electricity's initial and subsequent order delivery period requirements.

The documents detailed in b) and c) above, shall be fully completed by the Tenderer and submitted with the Tender documents. Clarification on the returnable documents may be sought with the Tenderer if necessary.

RETURNABLE A**ITEM NO., STOCK CODE, DESCRIPTION AND DELIVERY RATE SCHEDULE**

Item	Stock Code	Description	Estimated Annual Quantities	Delivery rate
1	1745	50 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	50	As required
2	1743	100 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	150	As required
3	1741	200 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	150	As required
4	1739	315 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	15	As required
5	1737	500 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	20	As required
6	1735	800 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	15	As required
7	1733	1 000 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	20	As required
8	102863	1 600 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	10	As required

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____ YYYY - MM – DD

SECTION 3

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 1

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 1 of RETURNABLE A: 50 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	50 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 50 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 1	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 50 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 50 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

SECTION 3

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 1 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 1 of RETURNABLE A: 50 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flags to be supplied and fitted onto LV bushing in accordance with clause 7.3.11.2 c) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies	SANS 60137 or SANS 1037	
35	MV bushing material	Porcelain	
36	MV bushing terminals to be tinned	Yes	*Yes/No
37	Creepage distance of MV bushing	372 mm (Minimum)	mm

*Delete whichever is not applicable.

BIDDING COMPANY:

NAME:

SIGNED:

CAPACITY OF SIGNATORY:

DATE:

YYYY - MM - DD

RETURNABLE DOCUMENT 1 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 1 of RETURNABLE A: 50 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details		eThekwini Electricity's Requirement	Tenderer's Offer
38	Overall transformer dimension	Length	1 200 mm (Maximum)	mm
		Depth	1 000 mm (Maximum)	mm
		Height	1 300 mm (Maximum)	mm
39	Surge arrester	Brackets in accordance with clause 7.3.12.4 of SECTION 7	Yes	*Yes/No
		Supplied and fitted in accordance with clause 7.3.14 of SECTION 7	Yes	*Yes/No
40	Pole-mounting brackets in accordance with clause 7.3.12.5 of SECTION 7		Yes	*Yes/No
41	Corrosion protection in accordance with clause 7.3.13 of SECTION 7		Yes	*Yes/No
42	Colour of distribution transformer		G35 "navy light grey" of SANS 1091	
43	Mass of complete distribution transformer		750 kg (Maximum)	kg
44	Warranty period			
44.1	Comprehensive		36 months	months
44.2	Corrosion		60 months	months
44.3	Oil Leaks		36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: _____ YYYY - MM - DD

RETURNABLE DOCUMENT 2

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 2 of RETURNABLE A: 100 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	100 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 100 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 2	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 100 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 100 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

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SECTION 3

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 2 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 2 of RETURNABLE A: 100 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flags to be supplied and fitted onto LV bushing in accordance with clause 7.3.11.2 c) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies	SANS 60137 or SANS 1037	
35	MV bushing material	Porcelain	
36	MV bushing terminals to be tinned	Yes	*Yes/No
37	Creepage distance of MV bushing	372 mm (Minimum)	mm

*Delete whichever is not applicable.

BIDDING COMPANY:

NAME:

SIGNED:

CAPACITY OF SIGNATORY:

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SECTION 3

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 2 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 2 of RETURNABLE A: 100 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details		eThekwini Electricity's Requirement	Tenderer's Offer
38	Overall transformer dimension	Length	1 500 mm (Maximum)	mm
		Depth	1 100 mm (Maximum)	mm
		Height	1 400 mm (Maximum)	mm
39	Surge arrester	Brackets in accordance with clause 7.3.12.4 of SECTION 7	Yes	*Yes/No
		Supplied and fitted in accordance with clause 7.3.14 of SECTION 7	Yes	*Yes/No
40	Pole-mounting brackets in accordance with clause 7.3.12.5 of SECTION 7		Yes	*Yes/No
41	Corrosion protection in accordance with clause 7.3.13 of SECTION 7		Yes	*Yes/No
42	Colour of distribution transformer		G35 "navy light grey" of SANS 1091	
43	Mass of complete distribution transformer		800 kg (Maximum)	kg
44	Warranty period			
44.1	Comprehensive		36 months	months
44.2	Corrosion		60 months	months
44.3	Oil Leaks		36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: YYYY - MM - DD

RETURNABLE DOCUMENT 3

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 3 of RETURNABLE A: 200 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	200 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 200 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 3	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 200 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 200 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

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RETURNABLE DOCUMENT 3 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 3 of RETURNABLE A: 200 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flags to be supplied and fitted onto LV bushing in accordance with clause 7.3.11.2 c) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies	SANS 60137 or SANS 1037	
35	MV bushing material	Porcelain	
36	MV bushing terminals to be tinned	Yes	*Yes/No
37	Creepage distance of MV bushing	372 mm (Minimum)	mm

*Delete whichever is not applicable.

BIDDING COMPANY:

NAME:

SIGNED:

CAPACITY OF SIGNATORY:

DATE:

YYYY - MM - DD

RETURNABLE DOCUMENT 3 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 3 of RETURNABLE A: 200 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details		eThekwini Electricity's Requirement	Tenderer's Offer
38	Overall transformer dimension	Length	1 600 mm (Maximum)	mm
		Depth	1 300 mm (Maximum)	mm
		Height	1 300 mm (Maximum)	mm
39	Surge arrester	Brackets in accordance with clause 7.3.12.4 of SECTION 7	Yes	*Yes/No
		Supplied and fitted in accordance with clause 7.3.14 of SECTION 7	Yes	*Yes/No
40	Suitable for bolting onto platforms forming part of an H-Pole structure in accordance with SANS 780		Yes	*Yes/No
41	Corrosion protection in accordance with clause 7.3.13 of SECTION 7		Yes	*Yes/No
42	Colour of distribution transformer		G35 "navy light grey" of SANS 1091	
43	Mass of complete distribution transformer			kg
44	Warranty period			
44.1	Comprehensive		36 months	months
44.2	Corrosion		60 months	months
44.3	Oil Leaks		36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: _____ YYYY - MM - DD

RETURNABLE DOCUMENT 4

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 4 of RETURNABLE A: 315 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	315 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 315 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 4	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 315 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 315 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 4 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 4 of RETURNABLE A: 315 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flag assembly fitted onto LV bushing in accordance with clause 7.3.11.2 d) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies to accommodate a Type 4 cable termination arrangement	BS EN 50180	
35	MV bushing profile	Type C	
36	MV bushing material	Epoxy resin	

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 4 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 4 of RETURNABLE A: 315 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekwini Electricity's Requirement	Tenderer's Offer
37	Tank cover bolted onto the tank with a sealing gasket between the tank cover and tank	Yes	*Yes/No
38	Sealing gasket information		
38.1	Sealing gasket manufacturer name		
38.2	Sealing gasket manufacturer reference number		
38.3	Sealing gasket material		
39	Distribution transformer underbase is of the skid-type design and is bolted onto another raised base	Yes	*Yes/No
40	Distribution transformer and raised base to be supplied as one unit and the cost of transformer shall be inclusive of the raised base	Yes	*Yes/No
41	Jacking pads fitted in accordance with clause 7.3.12.6 of SECTION 7	Yes	*Yes/No
42	Lifting lugs fitted in accordance with clause 7.3.12.7 of SECTION 7	Yes	*Yes/No
43	Radiators in accordance with clause 7.3.12.8 of SECTION 7	Yes	*Yes/No
44	LV termination enclosure supplied and fitted in accordance with clause 7.3.12.9 of SECTION 7	Yes	*Yes/No
45	MV termination enclosure supplied and fitted in accordance with clause 7.3.12.10 of SECTION 7	Yes	*Yes/No
46	Oil level gauge supplied and fitted in accordance with clause 7.3.12.11 of SECTION 7	Yes	*Yes/No
47	Overall transformer dimension	Length	1 900 mm (Maximum) mm
		Depth	1 600 mm (Maximum) mm
		Height (Including raised base)	2 300 mm (Maximum) mm
48	Corrosion protection in accordance with clause 7.3.13 of SECTION 7	Yes	*Yes/No
49	Colour of distribution transformer	G35 "navy light grey" of SANS 1091	
50	Mass of complete distribution transformer		kg
51	Warranty period		
51.1	Comprehensive	36 months	months
51.2	Corrosion	60 months	months
51.3	Oil Leaks	36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

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RETURNABLE DOCUMENT 5

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 5 of RETURNABLE A: 500 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	500 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 500 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 5	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 500 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 500 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

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SECTION 3

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 5 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 5 of RETURNABLE A: 500 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flag assembly fitted onto LV bushing in accordance with clause 7.3.11.2 d) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies to accommodate a Type 4 cable termination arrangement	BS EN 50180	
35	MV bushing profile	Type C	
36	MV bushing material	Epoxy resin	

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 5 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 5 of RETURNABLE A: 500 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details		eThekwini Electricity's Requirement	Tenderer's Offer
37	Tank cover <u>bolted</u> onto the tank with a sealing gasket between the tank cover and tank		Yes	*Yes/No
38	Sealing gasket information			
38.1	Sealing gasket manufacturer name			
38.2	Sealing gasket manufacturer reference number			
38.3	Sealing gasket material			
39	Distribution transformer underbase is of the skid-type design and is bolted onto another <u>raised base</u>		Yes	*Yes/No
40	Distribution transformer and raised base to be supplied as <u>one unit</u> and the cost of transformer shall be inclusive of the raised base		Yes	*Yes/No
41	Jacking pads fitted in accordance with clause 7.3.12.6 of SECTION 7		Yes	*Yes/No
42	Lifting lugs fitted in accordance with clause 7.3.12.7 of SECTION 7		Yes	*Yes/No
43	Radiators in accordance with clause 7.3.12.8 of SECTION 7		Yes	*Yes/No
44	LV termination enclosure supplied and fitted in accordance with clause 7.3.12.9 of SECTION 7		Yes	*Yes/No
45	MV termination enclosure supplied and fitted in accordance with clause 7.3.12.10 of SECTION 7		Yes	*Yes/No
46	Oil level gauge supplied and fitted in accordance with clause 7.3.12.11 of SECTION 7		Yes	*Yes/No
47	Overall transformer dimension	Length	2 000 mm (Maximum)	mm
		Depth	1 600 mm (Maximum)	mm
		Height (Including raised base)	2 300 mm (Maximum)	mm
48	Corrosion protection in accordance with clause 7.3.13 of SECTION 7		Yes	*Yes/No
49	Colour of distribution transformer		G35 "navy light grey" of SANS 1091	
50	Mass of complete distribution transformer			kg
51	Warranty period			
51.1	Comprehensive		36 months	months
51.2	Corrosion		60 months	months
51.3	Oil Leaks		36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: YYYY - MM - DD

RETURNABLE DOCUMENT 6

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 6 of RETURNABLE A: 800 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekwini Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	800 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 800 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 6	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 800 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 800 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

SECTION 3

Version 24/02/2023

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 6 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 6 of RETURNABLE A: 800 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flag assembly fitted onto LV bushing in accordance with clause 7.3.11.2 d) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies to accommodate a Type 4 cable termination arrangement	BS EN 50180	
35	MV bushing profile	Type C	
36	MV bushing material	Epoxy resin	

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 6 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 6 of RETURNABLE A: 800 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details		eThekwini Electricity's Requirement	Tenderer's Offer
37	Tank cover <u>bolted</u> onto the tank with a sealing gasket between the tank cover and tank		Yes	*Yes/No
38	Sealing gasket information			
38.1	Sealing gasket manufacturer name			
38.2	Sealing gasket manufacturer reference number			
38.3	Sealing gasket material			
39	Distribution transformer underbase is of the skid-type design and is bolted onto another <u>raised base</u>		Yes	*Yes/No
40	Distribution transformer and raised base to be supplied as <u>one unit</u> and the cost of transformer shall be inclusive of the raised base		Yes	*Yes/No
41	Jacking pads fitted in accordance with clause 7.3.12.6 of SECTION 7		Yes	*Yes/No
42	Lifting lugs fitted in accordance with clause 7.3.12.7 of SECTION 7		Yes	*Yes/No
43	Radiators in accordance with clause 7.3.12.8 of SECTION 7		Yes	*Yes/No
44	LV termination enclosure supplied and fitted in accordance with clause 7.3.12.9 of SECTION 7		Yes	*Yes/No
45	MV termination enclosure supplied and fitted in accordance with clause 7.3.12.10 of SECTION 7		Yes	*Yes/No
46	Oil level gauge supplied and fitted in accordance with clause 7.3.12.11 of SECTION 7		Yes	*Yes/No
47	Overall transformer dimension	Length	2 200 mm (Maximum)	mm
		Depth	1 800 mm (Maximum)	mm
		Height (Including raised base)	2 300 mm (Maximum)	mm
48	Corrosion protection in accordance with clause 7.3.13 of SECTION 7		Yes	*Yes/No
49	Colour of distribution transformer		G35 "navy light grey" of SANS 1091	
50	Mass of complete distribution transformer			kg
51	Warranty period			
51.1	Comprehensive		36 months	months
51.2	Corrosion		60 months	months
51.3	Oil Leaks		36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: YYYY - MM - DD

RETURNABLE DOCUMENT 7

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 7 of RETURNABLE A: 1 000 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	1 000 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 1 000 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 7	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 1 000 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 1 000 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 7 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 7 of RETURNABLE A: 1 000 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flag assembly fitted onto LV bushing in accordance with clause 7.3.11.2 d) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies to accommodate a Type 4 cable termination arrangement	BS EN 50180	
35	MV bushing profile	Type C	
36	MV bushing material	Epoxy resin	

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 7 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 7 of RETURNABLE A: 1 000 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekwini Electricity's Requirement	Tenderer's Offer
37	Tank cover bolted onto the tank with a sealing gasket between the tank cover and tank	Yes	*Yes/No
38	Sealing gasket information		
38.1	Sealing gasket manufacturer name		
38.2	Sealing gasket manufacturer reference number		
38.3	Sealing gasket material		
39	Distribution transformer underbase is of the skid-type design and is bolted onto another raised base	Yes	*Yes/No
40	Distribution transformer and raised base to be supplied as one unit and the cost of transformer shall be inclusive of the raised base	Yes	*Yes/No
41	Jacking pads fitted in accordance with clause 7.3.12.6 of SECTION 7	Yes	*Yes/No
42	Lifting lugs fitted in accordance with clause 7.3.12.7 of SECTION 7	Yes	*Yes/No
43	Radiators in accordance with clause 7.3.12.8 of SECTION 7	Yes	*Yes/No
44	LV termination enclosure supplied and fitted in accordance with clause 7.3.12.9 of SECTION 7	Yes	*Yes/No
45	MV termination enclosure supplied and fitted in accordance with clause 7.3.12.10 of SECTION 7	Yes	*Yes/No
46	Oil level gauge supplied and fitted in accordance with clause 7.3.12.11 of SECTION 7	Yes	*Yes/No
47	Overall transformer dimension	Length	2 400 mm (Maximum) mm
		Depth	2 000 mm (Maximum) mm
		Height (Including raised base)	2 300 mm (Maximum) mm
48	Corrosion protection in accordance with clause 7.3.13 of SECTION 7	Yes	*Yes/No
49	Colour of distribution transformer	G35 "navy light grey" of SANS 1091	
50	Mass of complete distribution transformer		kg
51	Warranty period		
51.1	Comprehensive	36 months	months
51.2	Corrosion	60 months	months
51.3	Oil Leaks	36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: YYYY - MM - DD

RETURNABLE DOCUMENT 8

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 8 of RETURNABLE A: 1 600 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which the 11 kV distribution transformer complies	SANS 780	
5	Distribution transformer designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
6	Rated power	1 600 kVA	kVA
7	Basic insulation level (BIL) voltage	95 kV	kV
8	Power frequency withstand voltage (60 s)	28 kV	kV
9	Maximum system voltage (U_m)	12 kV	kV
	Nominal primary voltage (U_n)	11 kV	kV
10	Rated no-load secondary voltage	420 V	V
11	Vector group	Dyn11	
12	Cooling and insulation design	Mineral oil-immersed: ONAN	
13	Mineral oil in accordance with the "Category C" classification (Uninhibited oil) of the Eskom Standard: 240-75661431	Yes	*Yes/No
14	Oil filling and impregnation of the cellulose insulation to be undertaken under full vacuum	Yes	*Yes/No
15	No-load loss (P_{NL}) and load-loss (P_{LL}) declaration		
15.1	Manufacturer test/design report for the 1 600 kVA transformer, detailing the guaranteed no-load loss (P_{NL}) and load loss (P_{LL}) , is attached to this RETURNABLE DOCUMENT 8	Yes	*Yes/No
15.2	Guaranteed no-load loss (P_{NL}) for the 1 600 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{NL} =_____kW
15.3	Guaranteed load loss (P_{LL}) for the 1 600 kVA transformer as reflected in the Tenderer's attached manufacturer test/design report		P_{LL} =_____kW
16	Core-clamping structure to have a removable single connection point that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed	Yes	*Yes/No
17	Core-clamping structure insulation withstand is tested at 2 kV for 60 s	Yes	*Yes/No

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

SECTION 3

Version 24/02/2023

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Special/Additional Conditions of Tender

RETURNABLE DOCUMENT 8 (continued)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 8 of RETURNABLE A: 1 600 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
18	Windings to be effectively clamped such that the clamping forces are distributed evenly over the windings	Yes	*Yes/No
19	Winding clamping arrangement to accommodate for an adjustment in pressure and winding shrinkage, as well as to withstand any axial force resulting from an external short-circuit	Yes	*Yes/No
20	Winding wire insulation	Enamel or paper	
21	Grade of enamel (if enamel is used)	Grade 3 (Minimum) in accordance with SANS 60317-0-1	
22	Covering of paper (if paper is used)	0,125 mm (Minimum)	mm
23	Winding insulation impulse withstand voltage (between turns)	21 kV (Minimum)	kV
24	Winding insulation power frequency withstand voltage (between turns)	8 kV (Minimum)	kV
25	Inter-turn and interlayer stresses	5 kV/mm (Maximum)	kV/mm
26	Tapping connections in accordance with SANS 780	Yes	*Yes/No
27	Tapping range	±2,5 % and ± 5 %	
28	Tap changer is suitable for de-energised tap changing	Yes	*Yes/No
29	Tap changer capable of withstanding the dielectric test voltages applicable to the respective part of the transformer winding	Yes	*Yes/No
30	Tap changer design	Ganged switched and is operable by means of an external rotary handle	*Yes/No
		Positively self-locating into each tap position when rotating handle	*Yes/No
		Tap position number increases when rotating handle in a clockwise direction	*Yes/No
		Tap position number is legibly and indelibly indicated for each tap position	*Yes/No
		Handle is pad-lockable	*Yes/No
31	Specification to which the LV bushing complies	SANS 60137 or SANS 1037	
32	LV bushing material	Porcelain	
33	Tinned flag assembly fitted onto LV bushing in accordance with clause 7.3.11.2 d) of SECTION 7	Yes	*Yes/No
34	Specification to which the MV bushing complies to accommodate a Type 4 cable termination arrangement	BS EN 50180	
35	MV bushing profile	Type C	
36	MV bushing material	Epoxy resin	

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

RETURNABLE DOCUMENT 8 (concluded)

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for item 8 of RETURNABLE A: 1 600 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
37	Tank cover bolted onto the tank with a sealing gasket between the tank cover and tank	Yes	*Yes/No
38	Sealing gasket information		
38.1	Sealing gasket manufacturer name		
38.2	Sealing gasket manufacturer reference number		
38.3	Sealing gasket material		
39	Distribution transformer underbase is of the skid-type design and is bolted onto another raised base	Yes	*Yes/No
40	Distribution transformer and raised base to be supplied as one unit and the cost of transformer shall be inclusive of the raised base	Yes	*Yes/No
41	Jacking pads fitted in accordance with clause 7.3.12.6 of SECTION 7	Yes	*Yes/No
42	Lifting lugs fitted in accordance with clause 7.3.12.7 of SECTION 7	Yes	*Yes/No
43	Radiators in accordance with clause 7.3.12.8 of SECTION 7	Yes	*Yes/No
44	LV termination enclosure supplied and fitted in accordance with clause 7.3.12.9 of SECTION 7	Yes	*Yes/No
45	MV termination enclosure supplied and fitted in accordance with clause 7.3.12.10 of SECTION 7	Yes	*Yes/No
46	Oil level gauge supplied and fitted in accordance with clause 7.3.12.11 of SECTION 7	Yes	*Yes/No
47	Overall transformer dimension	Length	2 700 mm (Maximum) mm
		Depth	2 300 mm (Maximum) mm
		Height (Including raised base)	2 300 mm (Maximum) mm
48	Corrosion protection in accordance with clause 7.3.13 of SECTION 7	Yes	*Yes/No
49	Colour of distribution transformer	G35 "navy light grey" of SANS 1091	
50	Mass of complete distribution transformer		kg
51	Warranty period		
51.1	Comprehensive	36 months	months
51.2	Corrosion	60 months	months
51.3	Oil Leaks	36 months	months

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____ SIGNED: _____

CAPACITY OF SIGNATORY: _____ DATE: YYYY - MM - DD

RETURNABLE DOCUMENT 9

This document shall be completed, signed and returned with Tender documents of which it forms part.

Requirements for 11 kV Surge arresters fitted onto items 1 to 3 of RETURNABLE A

Ref. No.	Technical Details	eThekweni Electricity's Requirement	Tenderer's Offer
1	Name of manufacturer		
2	Place of manufacture		
3	Manufacturer's reference number		
4	Specification to which surge arrester complies	NRS 039-1 or SANS 60099-4	
5	Design type	Gapless metal-oxide	
6	Surge arrester designed for environmental conditions detailed in Table 2 of SECTION 7	Yes	*Yes/No
7	Surge arrester classification	Distribution class	
8	Insulator material	Silicone rubber	
9	Designed with galvanically compatible materials	Yes	*Yes/No
10	Designed with an insulator mounting bracket	Yes	*Yes/No
11	Designed with a ground lead disconnecter (GLD) device	Yes	*Yes/No
12	Nominal system voltage	11 kV	kV
13	Power frequency wet withstand voltage (60 s)	28 kV	kV
14	Lightning impulse (1,2/50 μ s) withstand voltage	95 kV	kV
15	Lightning impulse (8/20 μ s) current discharge	10 kA	kA
16	Specification to which insulator material complies	SANS 60815-1 and SANS 60815-3	
17	Creepage distance	372 mm (Minimum)	mm
18	Grade of steel of bolts, nuts, springs and washers of size M8 or smaller	Stainless steel of grade 304, 316 or 317	
19	Mounting bracket design in accordance with clause 7.3.14.6 of SECTION 7	Yes	*Yes/No
20	GLD device supplied and fitted	Yes	*Yes/No
21	Specification to which GLD device complies	SANS 60099-4	
22	GLD device designed to operate when the surge arrester has failed, to isolate the arrester electrically from the system and to provide a visual indication that the arrester is internally damaged	Yes	*Yes/No
23	GLD device designed to have a withstand capability equivalent to that of the associated surge arrester for any impulse wave shape	Yes	*Yes/No
24	GLD device supplied with flexible braided ground leads to allow for easy disconnection of the GLD	Yes	*Yes/No
25	Surge arrester terminals to be fitted with one stainless steel nut, spring washer, star washer (line clamp) and flat washer	Yes	*Yes/No
26	Markings to be in accordance with clause 7.3.14.9 of SECTION 7	Yes	*Yes/No
27	Testing		
27.1	Detailed type test report included with Tender documents?	Yes	*Yes/No
27.2	Laboratory name(s) where type tests were undertaken		
27.3	Test report number(s)		

*Delete whichever is not applicable.

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM - DD

DELIVERY PERIODS SCHEDULE

This schedule shall be completed, signed and returned with Tender documents of which it forms part.

I/We hereby undertake to deliver the goods within the following period(s) from date of receipt of order - state period in days or weeks:

Item	Initial Order		Subsequent Orders	
	eThekwini Electricity's Preferred Requirement	Tenderer's Offer	eThekwini Electricity's Preferred Requirement	Tenderer's Offer
1	within 10 weeks		within 8 weeks	
2	within 10 weeks		within 8 weeks	
3	within 10 weeks		within 8 weeks	
4	within 10 weeks		within 8 weeks	
5	within 10 weeks		within 8 weeks	
6	within 10 weeks		within 8 weeks	
7	within 10 weeks		within 8 weeks	
8	within 10 weeks		within 8 weeks	

BIDDING COMPANY: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____

YYYY - MM – DD

SECTION 4: RETURNABLE TENDER DOCUMENTS

The required returnable documents are as detailed in [Section 2 \(Clause 4\)](#): “Returnable Schedules, Forms, Certificates” of the Conditions of Tender/Special Conditions of Tender.

- 1) Authority of Signatory
- 2) Tax Compliance Status PIN/Tax Clearance Certificate
- 3) Declaration of Municipal Fees
- 4) Declaration with respect to The Occupational Health and Safety Act
- 5(a) MBD 4: Declaration of Interest
- 5(b) MBD 5: Declaration for Procurement Above R10 Million
- 5(c) MBD 6.1: Preference Points Claim
- 5(d) MBD 8: Declaration of Bidder’s Past Supply Chain Management Practices
- 5(e) MBD 9: Certificate of Independent Bid Determination

The Tender Form can be found in [Section 9](#): “Official Tender Form”, and any additional schedules, forms, certificates can be found in [Section 10](#): “Annexures”.

1) AUTHORITY OF SIGNATORY

Reference is made to the Conditions of Tender: [Clause 4\(5\)\(c\)](#).

Indicate the status of the tenderer by ticking the appropriate box hereunder.

COMPANY		CLOSE CORPORATION		PARTNERSHIP		JOINT VENTURE		SOLE PROPRIETOR	
Refer to Notes at the bottom of the page									

I / We, the undersigned, being the Chairperson (Company), Member(s) (Close Corporation), Partners (Partnership), Sole Owner (Sole Proprietor), Lead Partner (JV), in the company / business trading as:

.....

hereby authorise Mr/Mrs/Ms

acting in the capacity of

to sign all documents in connection with the tender for Contract No. [31333-5E](#) and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Notes

Tenderers are to include, at the back of their tender submission document, a printout of the following documents:

If a Company : a "Resolution of the Board" in this regard.

If a Joint Venture : a "Power of Attorney" signed by the legally authorised signatories of all the partners to the Joint venture.

2) TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE

SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.

Separate Tax Clearance Certificates/TCS PINs are required for each entity in a Joint Venture.

The TCS PIN(s) are to be entered on the information table in **SECTION 1: GENERAL INFORMATION**.

Tenderers are to include, at the back of their tender submission document, a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.

Failure to include the required document will make the tender submission non-responsive.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

3) DECLARATION OF MUNICIPAL FEES

I, the undersigned, do hereby declare that the Municipal fees of

.....
(full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)

(hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

The following account details relate to property of the said TENDERER:

Account

Account Number: to be completed by tenderer.

Consolidated Account No.

--	--	--	--	--	--	--	--	--	--	--	--

Electricity

--	--	--	--	--	--	--	--	--	--	--	--

Water

--	--	--	--	--	--	--	--	--	--	--	--

Rates

--	--	--	--	--	--	--	--	--	--	--	--

Other

--	--	--	--	--	--	--	--	--	--	--	--

I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

- Where the TENDERER'S place of business or business interests are outside the jurisdiction of eThekweni Municipality, a copy of the accounts/agreements from the relevant municipality must be attached (to the back inside cover of this document).
- Where the tenderer's Municipal Accounts are part of their lease agreement, then a copy of the agreement, or official letter to that effect is to be attached (to the back inside cover of this document).

Tenderers are to include, at the back of their tender submission document, a printout of the above account's and or agreements signed with the municipality.

Failure to include the required document will make the tender submission non-responsive.

NAME (Block Capitals):

Date

SIGNATURE:

4) DECLARATION WITH RESPECT TO THE OCCUPATIONAL HEALTH AND SAFETY ACT

Definitions

The Act: The Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and any associated / applicable Regulations.

Declaration by Tenderer

1. I, the undersigned, hereby declare and confirm that I am fully conversant with the Act.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the work / supply / services under this contract in compliance with the Act, and the Employer's / Purchaser's / Client's Health and Safety Specifications.
3. I hereby undertake, if my tender is accepted, to provide on request a suitable and sufficiently documented Health and Safety Plan which plan shall be subject to approval by the Employer / Purchaser / Client.
4. I hereby confirm that adequate provision has been made in my tendered rates to cover the cost of all resources, actions, training and all health and safety measures envisaged in the Act, and that I will be liable for any penalties that may be applied by the Employer / Purchaser / Client for failure to comply with the provisions of the Act.
5. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer / Purchaser / Client will mean that I am unable to comply with the requirements of the Act and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer / Purchaser / Client.

NAME (Block Capitals):**Date****SIGNATURE:**

5(a) MBD 4: DECLARATION OF INTEREST**NOTES**

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

- (a) a member of:
- (i) any municipal council.
 - (ii) any provincial legislature.
 - (iii) the national Assembly or the national Council of provinces.
- (b) a member of the board of directors of any municipal enterprise.
- (c) an official of any municipality or municipal enterprise.
- (d) an employee of any national or provincial department, national or provincial public enterprise or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999).
- (e) a member of the accounting authority of any national or provincial public enterprise.
- (f) an employee of Parliament or a provincial legislature.

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

- 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 authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise

Name of enterprise's representative

3.2 ID Number of enterprise's representative

3.3 Position enterprise's representative occupies in the enterprise

3.4 Company Registration number

3.5 Tax Reference number

3.6 VAT registration number

3.7 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted.

Circle Applicable

3.8 Are you presently in the service of the state?

YES

NO

If yes, furnish particulars:

.....

.....

3.9 Have you been in the service of the state for the past twelve months?

YES

NO

If yes, furnish particulars:

.....

.....

3.10 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 yes, furnish particulars:

.....

.....

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES

NO

If yes, furnish particulars:

.....

.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES

NO

If yes, furnish particulars:

.....

.....

3.14 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:

.....

.....

- 4 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted

Full Name	Identity No.	State Employee No.	Personal income tax No.
Use additional pages if necessary			

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.

NAME (Block Capitals):

Date

SIGNATURE:

5(b) **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.

	Circle Applicable	
	YES	NO

1.0 Are you by law required to prepare annual financial statements for auditing?

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.**

	YES	NO
--	-----	----

2.0 Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?

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.

.....

.....

	YES	NO
--	-----	----

3.0 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?

3.1 If YES, provide particulars.

.....

.....

	YES	NO
--	-----	----

4.0 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?

4.1 If YES, provide particulars.

.....

.....

If required by 1.1 above, tenderers are to include, at the back of their tender submission document, a printout of their audited annual financial statements.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and, if required, that the requested documentation has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

5(c) MBD 6.1: PREFERENCE POINTS CLAIM
In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)

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

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

1.0 GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to invitations to tender:
the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2 The applicable preference point system for this tender is the **90/10 preference point system**.
- 1.3 Preference Points for this tender shall be awarded for:
 - **Price and Specific Goals:** 90 (price) and 10 (specific goals), in terms of 1.2 above.
 - The total Preference Points, for Price and Specific Goals, is 100.
- 1.4 Failure on the part of the tenderer to submit the required proof or documentation, in terms of the requirements in the (Special) Conditions of Tender for claiming **Specific Goal** preference points, will be interpreted that preference points for **Specific Goals** are not claimed.
- 1.5 The Municipality reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard of preferences, in any manner required by the Municipality.

2.0 DEFINITIONS

- 2.1 “**tender**” means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation.
- 2.2 “**price**” means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts.
- 2.3 “**rand value**” means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.
- 2.4 “**tender for income-generating contracts**” means a written offer in the form determined by Municipality 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 Municipality and a third party that produces revenue for the Municipality, 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.
- 2.5 “**the Act**” means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

3.1 PROCUREMENT OF GOODS AND SERVICES

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

90 / 10 Points System

$$P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where:

P_s = Points scored for price of tender under consideration

P_t = Price of tender under consideration

P_{min} = Price of lowest acceptable tender

4.0 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 tender. For the purposes of this tender the tenderer will be allocated points based on the **points claimed** for the goal(s) stated in **Table 1** below, as supported by proof/documentation stated in the **Conditions of Tender**:
- 4.2 In cases where the municipality intends 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, the municipality must, in the tender documents, stipulate in the case of:
 - (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system, or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the municipality 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 tender and maximum points for each goal are indicated per the table below. **Tenderers are to indicate their points claim for each of the Specific Goals in the shaded blocks.**

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (90/10 system)	Number of points CLAIMED (90/10 system)
Ownership Goal: Race (black)	4	
RDP Goal: The promotion of South African owned enterprises	2	
RDP Goal: The promotion of export-oriented production to create jobs	4	
Total CLAIMED Points (10 Maximum)		

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, certify that the points claimed, based on the specific goals as specified in the tender, qualifies the tendering entity for the preference(s) shown.

I acknowledge that:

- 1) The information furnished is true and correct.
- 2) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
- 3) 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.
- 4) If the specific goals have been claimed or obtained on a fraudulent basis, or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have:
 - (a) disqualify the person from the tendering process.
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct.
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation.
 - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
 - (e) forward the matter for criminal prosecution, if deemed necessary.

NAME (Block Capitals): _____

Date

SIGNATURE: _____

5(d) MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1.0	This Municipal Bidding Document must form part of all bids invited.		
2.0	It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.		
3.0	The bid of any bidder may be rejected if that bidder, or any of its directors have: <ul style="list-style-type: none"> a) abused the municipal entity's supply chain management system or committed any improper conduct in relation to such system. b) been convicted for fraud or corruption during the past five years. c) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years. d) been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004). 		
4.0	In order to give effect to the above, the following questions must be completed and submitted with the bid.		
		Circle Applicable	
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer / Authority of the institution that imposed the restriction after the audi alteram partem rule was applied.) The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	YES	NO
	4.1.1 If YES, provide particulars. 		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	YES	NO
	4.2.1 If YES, provide particulars. 		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	YES	NO
	4.3.1 If YES, provide particulars. 		

4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	YES	NO
	4.4.1 If YES, provide particulars.		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	YES	NO
	4.5.1 If YES, provide particulars.		

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both 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.

NAME (Block Capitals):

Date

.....

SIGNATURE:

.....

.....

5(e) MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION**NOTES**

- ¹ Includes price quotations, advertised competitive bids, limited bids and proposals.
- ² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
- ³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

- 1.0 This Municipal Bidding Document (MBD) must form part of all **bids**¹ invited.
- 2.0 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.
- 3.0 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.
- 4.0 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**.
- 5.0 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

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:

(Name of Bidder)

that:

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.
 - (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.
 - (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.
 - (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.

NAME (Block Capitals):

Date

SIGNATURE:

SECTION 5: CONDITIONS OF CONTRACT

GOVERNMENT PROCUREMENT: CONDITIONS OF CONTRACT (July 2010)

The **Conditions of Contract** are the **General Conditions of Contract** as published by the National Treasury titled "Government Procurement: General Conditions of Contract (July 2010), as amended by National Treasury Circular 52 dated 30 July 2010, hereinafter referred to as **GCC**.

THE NATIONAL TREASURY

Republic of South Africa



**GOVERNMENT PROCUREMENT:
GENERAL CONDITIONS OF CONTRACT**

July 2010

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1. Definitions

The following terms shall be interpreted as indicated:

- 1.1 "Closing time" means the date and hour specified in the bidding documents for the receipt of bids.
- 1.2 "Contract" means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
- 1.3 "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- 1.4 "Corrupt practice" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
- 1.5 "Countervailing duties" are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
- 1.6 "Country of origin" means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
- 1.7 "Day" means calendar day.
- 1.8 "Delivery" means delivery in compliance of the conditions of the contract or order.
- 1.9 "Delivery ex stock" means immediate delivery directly from stock actually on hand.
- 1.10 "Delivery into consignees store or to his site" means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the goods are so delivered and a valid receipt is obtained.
- 1.11 "Dumping" occurs when a private enterprise abroad markets 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 purchaser 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 purchaser 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 goods 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 "Purchaser" 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 "Supplier" means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.
- 1.26 "Tort" means in breach of contract.
- 1.27 "Turnkey" means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.
- 1.28 "Written" or "in writing" means hand-written 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 (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the bidding documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific goods, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.

3. General

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

4. Standards

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

5. Use of contract documents and information inspection

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent Rights

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

7. Performance security

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

8. Inspections, tests and analyses

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

- 8.3 If there are no inspection requirements indicated in the bidding documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.

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

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

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

- 8.7 Any contract goods may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods, which do comply with the requirements of the contract. Failing such removal the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.

- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 22 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size 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, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods and arrangements for shipping and clearance obligations, shall be made by the supplier in accordance with the terms [specified in the contract](#).

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](#).

12. Transportation

- 12.1 Should a price other than an all-inclusive delivered price be required, [this shall be specified](#).

13. Incidental Services

- 13.1 The supplier may be required to provide any or all of the following services, **including additional services**, if any:
- (a) performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;
 - (d) 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
 - (e) training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.
- 13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

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

15. Warranty

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

- 15.5 If the supplier, having been notified, fails to remedy the defect(s) **within the period specified**, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

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

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** or in the purchaser's request for bid validity extension, as the case may be.

18. Variation orders

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

19. Assignment

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

20. Subcontracts

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

21. Delays in the supplier's performance

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the **time schedule prescribed** by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.
- 21.3 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the goods are required, or the supplier's services are not readily available.

- 21.4 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalties.
- 21.5 Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without cancelling the contract, be entitled to purchase goods of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.
- 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 purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.
- 23. Termination for default**
- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:
- (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2;
 - (b) if the supplier fails to perform any other obligation(s) under the contract; or
 - (c) if the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner, as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.
- 23.3 Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years.
- 23.4 If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than fourteen (14) days to provide reasons why the envisaged restriction should not be imposed. Should the supplier fail to respond within the stipulated fourteen (14) days the purchaser may regard the supplier as having no objection and proceed with the restriction.
- 23.5 Any restriction imposed on any person by the purchaser will, at the discretion of the purchaser, also be applicable to any other enterprise or any partner, manager, director or other person who wholly or partly exercises or exercised or may exercise control over the enterprise of the first-mentioned person, and with which enterprise or person the first-mentioned person, is or was in the opinion of the purchaser actively associated.
- 23.6 If a restriction is imposed, the purchaser must, within five (5) working days of such imposition, furnish the National Treasury, with the following information:
- (i) the name and address of the supplier and / or person restricted by the purchaser;
 - (ii) the date of commencement of the restriction
 - (iii) the period of restriction; and
 - (iv) the reasons for the restriction.
- These details will be loaded in the National Treasury's central database of suppliers or persons prohibited from doing business with the public sector.
- 23.7 If a court of law convicts a person of an offence as contemplated in sections 12 or 13 of the Prevention and Combating of Corrupt Activities Act, No. 12 of 2004, the court may also rule that such person's name be endorsed on the Register for Tender Defaulters. When a person's name has been endorsed on the Register, the person will be prohibited from doing business with the public sector for a period not less than five years and not more than 10 years. The National Treasury is empowered to determine the period of restriction and each case will be dealt with on its own merits. According to section 32 of the Act the Register must be open to the public. The Register can be perused on the National Treasury website.
- 24. Antidumping and countervailing duties and rights**
- 24.1 When, after the date of bid, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or anti-dumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to goods or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.
- 25. Force Majeure**
- 25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.
- 25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.
- 26. Termination for insolvency**
- 26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

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

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;
- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
 - (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

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

30. Applicable law

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

31. Notices

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

32. Taxes and duties

- 32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.
- 32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.
- 32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a bid SARS must have certified that the tax matters of the preferred bidder are in order.
- 32.4 No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

33. Transfer of Contracts

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

34. Amendment of contracts

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

35. Prohibition of restrictive practices

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

SECTION 6: SPECIAL/ADDITIONAL CONDITIONS OF CONTRACT

The **Conditions of Contract** make reference to the **Special Conditions of Contract (SCC)** for details that apply specifically to this Tender. The **SCC** shall have precedence in the interpretation of any ambiguity or inconsistency between it and the **Conditions of Contract**. Each item below is cross-referenced to the clause in the **Conditions of Contract** to which it mainly applies. Each item below is cross-referenced to the clause in the **Conditions of Contract** to which it mainly applies.

SCC 1.2 CONTRACT

- a) This contract will commence when the existing contract i.e. E.9775 expires on 2025-12-12.
- b) In the event of the Letters of Award (LoA) being issued on any date before 2025-12-12, then this contract will commence on 2025-12-13 and terminate on 2028-12-12.
- c) In the event of the LoA being issued on any date after 2025-12-12, then this contract will commence on the date of signature of the LoA and terminate 36 months after.

SCC 7.1 PERFORMANCE SECURITY

The liability of the Performance Security shall be Nil.

SCC 10.1 DELIVERY

The cost of delivery and off-loading shall be amortised into the Tender price of each 11 kV distribution transformer. The 11 kV distribution transformers shall be delivered and off-loaded at eThekweni Municipality – Electricity Unit's Electrical Workshops Branch situated on 11 Electron Road (off Umgeni Road) in Springfield, Durban.

SCC 12.1 TRANSPORTATION

The cost of transport shall be amortised into the Tender price of each item. No additional transport costs shall be entertained.

SCC 16.1 PAYMENT

The Contractor shall submit to the Department concerned a detailed account which shall reflect the identifying number of each item/service. Payment will be made on this account when checked and substantiated by the authorised official.

Payment for goods received and accepted by the Municipality shall be made no later than 30 days after submission of invoice or claim, provided however that all the terms of the contract are duly complied with.

Payment will be made only to the supplier. Factoring arrangements will not be accepted.

SCC 17 PRICES

The **Capital Cost per unit (Excl. VAT)** prices submitted in **SECTION 8: BILL OF QUANTITIES** shall be based on one or a combination of the following:

- i) Rates of exchange, with the base rate as that published by a reputable South African bank seven-days prior to bid closing;
- ii) SEIFSA indices, with indices as that published by SEIFSA two-months prior to bid closing; or
- iii) CPI per province (KwaZulu-Natal) as specified on **Table A (Consumer Price Index: Main indices) of Statistical Release P0141**, as that published by Statistics South Africa two-months prior to bid closing.

A) RATES OF EXCHANGE

The first adjustment of the capital price(s) declared in **SECTION 8: BILL OF QUANTITIES** shall be undertaken when the Contractor(s) receives the first "Official Purchase Order", on condition that:

- a) The Contractor(s), within seven-days of receiving the "Official Purchase Order", arranges "forward exchange cover" i.e. fixing the rate of exchange;
- b) The "forward exchange cover" is arranged via a reputable South African bank; and
- c) The "forward exchange cover" shall be firm for the first month from the date of the "Official Purchase Order".

Hence, the first adjustment of the capital price(s) declared in **SECTION 8: BILL OF QUANTITIES** shall take into account any variation in the rates of exchange between the following dates:

- i) The date of the base rate as that published by a reputable South African bank seven days prior to bid closing; and
- ii) The date the "forward exchange cover" is arranged after the first "Official Purchase Order".

The adjustment of capital price(s) shall then be undertaken for subsequent orders provided that the Contractor(s) arranges "forward exchange cover" via a reputable South African bank after each order. The price difference shall be paid or deducted by the Municipality in correlation with any increase or decrease in the basic rate of exchange.

Upon the failure of the Contractor(s) to arrange "forward exchange cover", the Contractor(s) shall be liable should there be an increase in the basic rate of exchange occurring after the last-mentioned date.

B) SEIFSA INDICES

The first adjustment of the capital price(s) declared in **SECTION 8: BILL OF QUANTITIES** shall be undertaken when the Contractor(s) receives the first "Official Purchase Order" and shall take into account any variation in indices between the:

- i) indices published by SEIFSA two-months prior to bid closing; and
- ii) indices published by SEIFSA two-months prior to the date of the first "Official Purchase Order".

The adjustment of capital price(s) for subsequent orders shall then be undertaken on the date of every order in accordance with the respective indices, two-months prior, as those published by SEIFSA.

C) CONSUMER PRICE INDEX (CPI)

The first adjustment of the capital price(s) declared in **SECTION 8: BILL OF QUANTITIES** shall be undertaken when the Contractor(s) receives the first "Official Purchase Order" and shall take into account any variation in the CPI between the:

- i) CPI published by Statistics South Africa two-months prior to bid closing; and
- ii) CPI published by Statistics South Africa two-months prior to the date of the first "Official Purchase Order".

The adjustment of capital price(s) for subsequent orders shall then be undertaken on the date of every order in accordance with the CPI per province (KwaZulu-Natal) as specified on **Table A (Consumer Price Index: Main indices) of Statistical Release P0141**, two-months prior, as those published by Statistics South Africa.

SCC 21.1 DELAYS IN THE SUPPLIER'S PERFORMANCE

The time schedule for the delivery of goods and performance of services is detailed in the **DELIVERY PERIODS SCHEDULE** in **SECTION 3**.

SCC 22.1 PENALTIES

If the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the **DELIVERY PERIODS SCHEDULE** of **SECTION 3**, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price a penalty of 0,5 % of the order for each stock item that has not been supplied, and capped at 5 %. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

ADDITIONAL CONDITIONS OF CONTRACT

ACC1 PERFORMANCE MONITORING & ASSESSMENT OF SERVICE PROVIDERS

For contract awards that are greater than R 10M, the Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section of the Council's current Supply Chain Management Policy.

ACC 2 QUALITY OF PRODUCTS

No inferior products will be accepted under this enquiry.

Should there be any cause for complaint against the standard of service or quality of products offered which is not resolved within a period of 10 working days, the Municipality reserves the right to cancel the contract after serving one month's notice, in writing, to the supplier involved. Should such notice be given, the supplier shall nevertheless be obliged to perform the duties covered by the contract up to the date of expiration of the period of notice.

ACC 3 COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES (COID) ACT NO. 130 of 1993

This act replaces the Workmen's Compensation Act.

The supplier shall, before commencement of work, produce documentary proof to the Head: Electricity, that he/she has complied in all respects with the provisions of the COID Act. The supplier undertakes that he/she will perform and comply with all provisions of the COID Act and more particularly that he/she will render all returns and pay all assessments for which he/she is liable in terms of such Act.

ACC 4 DAMAGE TO PERSONS AND PROPERTY

- a) The supplier **shall** indemnify and keep indemnified the Council against any claim for death, injury, damage or loss to any person or property whatsoever in respect thereof or in relation thereto.
- b) The supplier enters into this contract as an independent contractor and shall be solely liable in respect of any claim for death, injury, damage or loss to any person or property whatsoever in respect thereof or in relation thereto.

ACC 5 ESTIMATED QUANTITIES

The quantities stated in **SECTION 8** are applicable for evaluation purposes only. The final quantity of goods required shall vary, depending on the total number of actual instances the goods will be required over the contract duration. The prices submitted shall be irrespective of the quantity of goods required over the contract duration.

SECTION 7: SCOPE, NORMATIVE REFERENCES, ENVIRONMENTAL CONDITIONS, OPERATING CONDITIONS AND TECHNICAL REQUIREMENTS

7.1 SCOPE

Tenderers are required to design, manufacture, test, supply, deliver and off-load pole mounted as well as ground-mounted 11 kV distribution transformers characterised by the following:

- a) Nominal Voltages (Primary/Secondary): 11 000 V/420 V;
- b) Ratings (kVA) range: 50 kVA to 1 600 kVA;
- c) Cooling and insulation: mineral oil-immersed;
- d) Phase: 3-phase; and
- e) Vector group: Dyn11.

7.2 NORMATIVE REFERENCES, ENVIRONMENTAL AND OPERATING CONDITIONS

7.2.1 The normative references detailed in **Table 1** contain provisions that through reference in the text, constitute requirements of this technical specification.

Table 1 – Normative references

ASTM E376-2019	Standard practice for measuring coating thickness by magnetic-field or eddy current (Electromagnetic) testing methods
BS EN 50180-1:2015	Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers, Part 1: General requirements for bushings
BS EN 50180-2:2015	Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers, Part 2: Requirements for bushing components
BS EN 50180-3:2018	Bushings above 1 kV up to 52 kV and from 250 A to 3,15 kA for liquid filled transformers, Part 3: Requirements for bushing fixations
Eskom Standard 240-45395762:2022	Specific requirements for distribution pole and ground-mounted transformers up to 33 kV and 1 MVA
Eskom Standard 240-75655452:2023	Handling and transportation of distribution transformers up to 500 kVA and 33 kV
Eskom Standard 240-75661431:2020	Standard for mineral insulating oils (Uninhibited and Inhibited): Purchase, management, maintenance, testing and disposal
IEC 60243-1:2013	Electric strength of insulating materials – Test methods, Part 1: Tests at power frequencies
NRS 039-1:2021	Surge arresters for use in distribution systems
SANS 121:2024	Hot dip galvanised coatings on fabricated iron and steel articles – Specifications and test methods
SANS 780:2021	Distribution transformers
SANS 876:2022	Cable terminations and live conductors within air-filled enclosures (insulation co-ordination) for rated a.c. voltages from 7,2 kV up to and including 36 kV
SANS 1037:2021	Standard ceramic transformer bushings
SANS 1091:2012	National colour standard
SANS 12944-2:1998	Paints and varnishes – Corrosion protection of steel structures by protective paint systems, Part 2: Classification of environments
SANS 60076-5:2006	Power Transformers, Part 5: Ability to withstand short circuit
SANS 60099-4:2014	Surge arresters, Part 4: Metal oxide surge arresters without gaps for a.c. systems
SANS 60137:2022	Insulated bushings for alternating voltages above 1 000 V
SANS 60317-0-1:2020	Specifications for particular types of winding wires, Part 0-1: General requirements – Enamelled round copper wire
SANS 60815-1:2009	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions, Part 1: Definitions, information and general principles
SANS 60815-3:2009	Selection and dimensioning of high-voltage insulators intended for use in polluted conditions, Part 3: Polymer insulators for a.c. systems
SANS 61109:2008	Insulators for overhead lines – Composite suspension and tension insulators for a.c. systems with a nominal voltage greater than 1 000 V – Definitions, test methods and acceptance criteria

- 7.2.2** The environmental and operating conditions detailed in **Table 2** shall be taken into account when designing 11 kV distribution transformers and surge arresters detailed in this specification to ensure these items will operate satisfactorily for the duration of its design life.

Table 2 – Environmental and operating conditions

Environmental conditions	
Altitude	sea-level to 1 000 m
Ambient temperature – Minimum	0 °C
Ambient temperature – Maximum	40 °C
Ambient temperature – Average	35 °C measured over a period of 24 h
Atmospheric-corrosivity category	C5 in accordance with SANS 12944-2
Climate	humid, heavily salt-laden, marine and sub-tropical
Irradiation (annual)	1 700 kWh/m ²
Lightning level; lightning ground flash density	High; with up to 5 flashes per km ² per year
Rainfall – Average annual	1 000 mm
Relative humidity – Average	95 % measured over a period of 24 h
Operating conditions	
Basic insulation level (BIL)	95 kV
Maximum system voltage (U _m)	12 kV
Nominal primary voltage (U _n)	11 kV
No-load secondary voltage	420 V
Phase	3-phase
System frequency	50 Hz

7.3 TECHNICAL REQUIREMENTS

EThekweni Municipality's technical requirements for pole and ground-mounted 11 kV distribution transformers are detailed below.

7.3.1 General

The 11 kV distribution transformers shall be:

- designed and manufactured to fully comply with the requirements detailed in SANS 780;
- designed as a mineral "oil-immersed" type transformer;
- designed with an "oil natural air natural" (ONAN) cooling system;
- designed with internal materials and components that are fully compatible with each other and with the mineral oil; and
- designed with materials and/or coating systems and components capable of withstanding the coastal environmental conditions detailed in **Table 2** above.

- 7.3.2** The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 3** of **SECTION 3** shall be sealed with welded main tank lids.

- 7.3.3** The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8** of **SECTION 3** shall be sealed with bolts fitted onto the main tank lids.

7.3.4 Electrical requirements

The 11 kV distribution transformers shall:

- be designed with a basic insulation level (BIL) of 95 kV;
- be designed for a maximum system voltage (U_m) of 12 kV;
- be designed with a nominal primary voltage (U_n) of 11 kV;
- be designed with a no-load secondary voltage of 420 V;
- be designed with a three-phase configuration;
- be designed with a Dyn11 vector group;
- be designed with ratings ranging from 50 kVA to 1 600 kVA; and
- be designed with the respective impedances in accordance with SANS 780.

- 7.3.5** The core and winding design of the 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8** of **SECTION 3** shall:

- be able to withstand, without sustaining any damage, the thermal and dynamic effects of an external short-circuit under the conditions specified in SANS 60076-5; and
- incorporate sufficient safety margins and clearances to accommodate the stresses posed by over-voltages and fast transients on eThekweni Municipalities 11 kV network.

7.3.6 Core design

- a) The core shall be designed with a metal clamping structure that is able to effectively clamp the core. Alternative clamping structure materials may be accepted and is subject to approval of the Senior Manager: Technology Services.
- b) The core-clamping structure shall have a removable **single connection point** that is in an accessible position at the top of the core to allow for the magnetic circuit to be earthed.
- c) The core-clamping structure shall be insulated from the core and this insulation shall be able to withstand an r.m.s. test voltage of 2 kV at 50 Hz for 60 s.

7.3.7 Winding design

- a) The windings shall be effectively clamped such that the clamping forces are distributed evenly over the windings.
- b) The clamping arrangement shall be such that it can accommodate an adjustment in pressure and winding shrinkage.
- c) The clamping arrangement shall be capable of withstanding any axial force that could arise as a result of an external short-circuit.

7.3.7.1 Inter-turn (between winding) winding insulation

- a) The winding wire insulation shall be either enamel or paper.
- b) The enamel covered wire insulation shall be grade 3 or better in accordance with SANS 60317-0-1.
- c) The paper covered wire insulation shall have a minimum covering of 0,125 mm in accordance with IEC 60243-1.
- d) The insulation shall have a minimum impulse withstand of 21 kV and a minimum power frequency withstand of 8 kV between turns.
- e) The inter-turn stresses shall not exceed 5 kV/mm.

7.3.7.2 Interlayer (between each layer) winding insulation

The interlayer stresses shall not exceed 5 kV/mm in any part of the winding.

7.3.8 The cellulose insulation system used in the construction of the 11 kV distribution transformers shall be impregnated with mineral oil under full vacuum.

7.3.9 Mineral oil

7.3.9.1 The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall be filled with mineral oil.

7.3.9.2 The mineral oil shall be in accordance with the "Category C" classification, as detailed in **Table 4** of the Eskom Standard: 240-75661431:2020.

7.3.9.3 The filling of the mineral oil into the 11 kV distribution transformer shall be undertaken under full vacuum.

7.3.9.4 The level of the mineral oil inside the 11 kV distribution transformer tank, post filling, shall be calculated such that it accommodates fluctuations in loading from 0 % to 200 % to cater for the reduction in oil level when the tank expands.

7.3.10 Tap changers**7.3.10.1 General**

The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall be fitted with tap-changers that have the following:

- a) tapping connections in accordance with SANS 780; and
- b) tapping range of -5 %; -2,5 %; 0 %; +2,5 % and +5 %.

7.3.10.2 The tap changers shall:

- a) be designed for de-energised tap-changing;
- b) be capable of withstanding the dielectric test voltages (impulse and power frequency) applicable to the respective part of the 11 kV distribution transformer windings;
- c) be able to carry, without harm, the overload current of the transformer;
- d) be able to carry, without harm, the external short-circuit current generated;
- e) be ganged switched with an operating mechanism that allows for operation by means of an external pad lockable handle in an unobstructed position;
- f) be positively self-locating when switching between tapping positions, without constraint from the operating mechanism;
- g) be designed such that the tap position number is increased when turning the external pad lockable handle in a clockwise direction; and

- h) provide indication of each tap position by means of a number legibly and indelibly marked.

7.3.11 Bushings

7.3.11.1 General

- The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall be fitted with low voltage (LV) and medium voltage (MV) bushings. These bushings shall **NOT** be lid mounted.
- The current carrying connections to the bushings shall be sufficiently flexible to prevent strain and subsequent failure of the connection or bushing, during transportation.

7.3.11.2 LV bushings for 11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 1 to 8 of SECTION 3

- The bushings shall be manufactured from porcelain.
- The bushings shall comply with the relevant requirements detailed in SANS 1037 or SANS 60137.
- The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 3 of SECTION 3** shall be fitted with tinned flags on the LV bushings. The tinned flags shall have 2 x 14 mm, in diameter, holes to accommodate M12 accessories. The distance between hole centres shall be 25 mm (minimum).
- The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall be fitted with the respective tinned flag assembly on the LV bushings. The respective tinned flag assembly shall:
 - accommodate the "number of torque shear lugs" detailed in **column 4 of Table 3**; and
 - be designed to ensure that the minimum clearance of 60 mm between phase-to-phase is maintained, as detailed in **Figure 1** when taking the following into account:
 - the torque shear lug dimensions;
 - LV flag orientation; and
 - fasteners required to be connected.

Note: The palm dimension on the torque shear lug can be considered as 50 mm x 50 mm (worst case).

Table 3 – Details for torque shear lugs and cable glands

1	2	3	4		5		6	7
Item No. from RETURNABLE A	Transformer rating (kVA)	Size and type of LV cable	Number of torque shear lugs		Number of cable gland holes		Cable gland type and size	Gland hole size
			Per phase	Neutral	Per phase	Neutral		
4	315 kVA	240 mm ² Aluminium 1 – core	1	1	1	1	Mechanical non-insulating No. 4	ø 40 mm
5	500 kVA		2	2	2	2		
6	800 kVA		3	2	3	2		
7	1 000 kVA		4	2	4	2		
8	1 600 kVA		6	3	6	3		

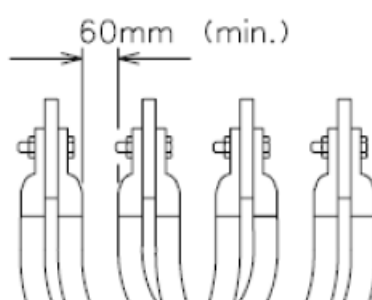


Figure 1 – Minimum LV flag clearance for 11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 4 to 8 of SECTION 3

7.3.11.3 MV bushings for 11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 1 to 3 of SECTION 3

- The bushings shall be manufactured from porcelain.
- The bushings shall comply with the relevant requirements detailed in SANS 1037 or SANS 60137.
- The bushings shall be designed for outdoor applications with a site pollution severity (SPS) class of "heavy to very heavy" as defined in SANS 60815-1.
- The bushings shall be designed to have a specific creepage distance of 31 mm/kV.
- The bushings shall have an M12 copper stem that is tinned.
- The bushings shall be fixed onto the transformer tank by bolting one or more clamps at the base of the bushing.

- g) The clamp(s) applied to the base of the bushing shall ensure that clamping forces are evenly distributed over the area of the bushing base hence minimising excessive mechanical forces that may lead to point-loading and subsequent failure of the bushing.

7.3.11.4 MV bushings for 11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 4 to 8 of SECTION 3

- a) The bushings shall be manufactured from resin.
- b) The bushings shall comply with the relevant requirements detailed in SANS 876, to accommodate a Type 4 cable termination arrangement.
- c) The bushings shall have an "interface **Type C** profile" in accordance with BS EN 50180-1 to 3.

7.3.12 Physical requirements

7.3.12.1 Dimensions

The 11 kV distribution transformers shall have overall dimensions in accordance with their respective **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3**.

7.3.12.2 Underbase

- a) The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 3 of SECTION 3** shall have a skid type underbase.
- b) The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall have a skid type underbase bolted onto another raised base. The 11 kV distribution transformer and raised base shall be supplied as **one unit**.

7.3.12.3 Tank cover and gaskets

- a) The tank cover shall be constructed such that it does not accumulation dirt and water.
- b) The tank cover for the 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 3 of SECTION 3** shall be welded onto the tank.
- c) The tank cover for the 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall:
 - i) be bolted onto the tank with a sealing gasket between the tank cover and tank; and
 - ii) utilise sealing gaskets manufactured from a material that is chemically resistant to the mineral oil and other material used in the design of the transformer.

Note: In the event of synthetic rubber being used as the sealing gasket, then steel stops shall be provided to prevent over-compression of the gasket.

7.3.12.4 Surge arrester brackets

The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 3 of SECTION 3** shall be fitted with surge arrester brackets in accordance with **clause 8.15** of SANS 780:2021.

7.3.12.5 Pole-mounting brackets

The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 and 2 of SECTION 3** shall be fitted with pole mounting brackets and accessories in accordance with **clause 8.19** of SANS 780:2021.

7.3.12.6 Jacking pads

The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall be fitted with jacking pads in accordance with **clause 8.21** of SANS 780:2021.

7.3.12.7 Lifting lugs

The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall be fitted with lifting lugs in accordance with **clause 8.22** of SANS 780:2021.

7.3.12.8 Radiators

- a) The radiators shall be positioned such that it does not obstruct the connection path of the MV or LV cables.
- b) The radiators shall be adequately protected against mechanical damage.

7.3.12.9 LV cable termination enclosure

- a) The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall be fitted with an air-filled cable termination enclosure over the LV bushings.
- b) The enclosure shall be designed to accommodate the following:
 - i) the required size and type of LV cable, as detailed in **column 3 of Table 3**; and
 - ii) the required number of LV cables, per phase and neutral, for the respective transformer size.
- c) The enclosure shall have top and bottom removable non-conductive gland plates. The gland plate shall accommodate the following:

- i) the required number of cable gland holes, as detailed in **column 5 of Table 3**; and
- ii) the required cable gland hole size, as detailed in **column 7 of Table 3**.
- d) The gland plate shall make provision for the fitting of cable glands by being provided with pre-punched gland holes.
- e) The gland plate holes shall be aligned with the bushing centres.
- f) The neutral shall be connected to the transformer earth boss with an aluminium bus bar through the enclosure.

7.3.12.10 MV cable termination enclosure

- a) The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall be fitted with an air-filled cable termination enclosure over the MV bushings.
- b) The enclosure shall be designed in accordance with the requirements detailed in SANS 876.
- c) The enclosure shall be able to accommodate a Type 4 cable termination arrangement in accordance with SANS 876.
- d) The enclosure shall have a bottom removable non-conductive gland plate.
- e) The gland plate shall be designed such that once it is removed, the entire bottom of the cable termination enclosure is exposed.
- f) The gland plate shall have a pre-drilled/punched cable entry hole of 110 mm diameter that is positioned in-line of the centre phase bushing.
- g) The polyurethane clamp shall be installed below and as close as possible to the gland plate and the centre of the clamp shall be aligned with the cable entry hole of the gland plate.

7.3.12.11 Oil level gauge

The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 4 to 8 of SECTION 3** shall be fitted with oil level gauges in accordance with **clause 8.17** of SANS 780:2021.

7.3.13 Corrosion protection

7.3.13.1 The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall be designed for coastal applications by taking into account the environmental conditions detailed in **Table 2**.

7.3.13.2 The distribution transformers shall be designed with a corrosion protection system for an **outdoor environment** with an exterior **atmospheric-corrosivity category of C5** as defined in SANS 12944-2. The Tenderer shall provide the following information to prove the corrosion protection system is suitable for a C5 category:

- a) application of the proposed corrosion protection system;
- b) surface preparation requirements;
- c) coating system composition;
- d) coating system application guideline;
- e) coating system total dry film thickness; and
- f) health and safety documents from the coating system manufacturer.

7.3.13.3 The corrosion protection system shall be evenly applied to form a smooth, continuous and unbroken coating, free from sags, runs and other defects.

7.3.13.4 The colour of the final coat for the 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall be G35 "navy light grey" as detailed in SANS 1091.

7.3.13.5 The coating thickness on the metal substrate shall be verified, using a calibrated electronic instrument, in accordance with ASTM E376. These measurements shall be made on surfaces that are free from contaminants and shall be recorded for each transformer on their respective routine test report.

7.3.13.6 The 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3** shall carry a 60-month warranty against corrosion, commencing from the date of delivery.

7.3.14 Surge arresters

SURGE ARRESTERS SHALL ONLY BE SUPPLIED AND INSTALLED TO 11 KV DISTRIBUTION TRANSFORMERS DETAILED IN RETURNABLE DOCUMENTS 1 TO 3 OF SECTION 3.

The technical requirements for the required surge arresters are detailed in **clauses 7.3.14.2 to 7.3.14.9**.

7.3.14.1 The surge arresters shall be supplied and installed onto the brackets detailed in **clause 7.3.12.4**, prior to delivery of the respective 11 kV distribution transformers to eThekweni Municipality.

7.3.14.2 General

The surge arresters shall:

- a) be of the of the gapless metal-oxide type that fully complies with the requirements detailed in NRS 039- 1 or SANS 60099-4;
- b) be designed to withstand the environmental conditions detailed in **Table 2**;
- c) be designed as a “distribution class” surge arrester;
- d) be designed with a silicone rubber insulator;
- e) be designed with galvanically compatible materials;
- f) be designed with an insulator mounting bracket; and
- g) be designed with a ground lead disconnecter (GLD) device.

7.3.14.3 Electrical requirements for “distribution class” surge arrester

The surge arresters shall:

- a) have a power frequency voltage rating of 12 kV;
- b) have a power frequency wet withstand voltage rating of 28 kV;
- c) have a 1,2/50 μ s, lightning impulse voltage withstand rating of 95 kV;
- d) have a 8/20 μ s, lightning impulse current discharge rating of 10 kA; and
- e) have a maximum continuous operating (power frequency) voltage of 10 kV.

7.3.14.4 Insulator design

The insulator material used in the design of the surge arrester shall:

- a) be manufactured from silicone rubber complying with the requirements detailed in SANS 60815-1, SANS 60815-3 and SANS 61109;
- b) be manufactured from silicone rubber that has active fillers, for example, hydrated alumina in conjunction with other catalysts; and
- c) have a minimum creepage distance of 372 mm.

Note: The additives utilised in silicone rubber shall not accelerate the damage caused by the aqueous salt to the polymer chains or methyl groups.

7.3.14.5 Material design

The materials used in the design of the surge arrester shall:

- a) be galvanically compatible with each other in that there is no contact between dissimilar metals and alloys unless suitable steps have been taken to prevent galvanic corrosion;
- b) be 3CR12 or stainless steel of grade 304, 316 or 317; and
- c) be hot-dip galvanised in accordance with SANS 121 where ferrous and ferrous alloy parts are used and the minimum thickness of the zinc shall be 45 μ m.

7.3.14.6 Mounting bracket design

- a) The surge arresters shall have an insulated mounting arm for direct attachment onto the brackets detailed in **clause 7.3.12.4**.
- b) The mounting arm shall be manufactured from an insulating material that is able to pass the wet power frequency withstand voltage detailed in **clause 7.3.14.3 b)**.

7.3.14.7 Ground lead disconnecter (GLD)

- a) The surge arresters shall be fitted with a GLD device that complies with the requirements detailed in SANS 60099-4.
- b) The GLD shall be designed:
 - i) to operate when the surge arrester has failed in order to isolate the arrester electrically from the system and to provide a visual indication when the surge arrester is internally damaged; and
 - ii) to have a withstand capability equivalent to that of the associated surge arrester for any impulse wave shape.
- c) The external housing of the GLD shall be UV stable and shall not deteriorate in service as a result of exposure to the environment.
- d) The GLDs shall be permanently sealed to prevent moisture ingress.

7.3.14.8 Ground lead

- a) The surge arresters shall be supplied and fitted with flexible braided ground leads with galvanically compatible lugs.
- b) The flexible braided ground leads shall be connected between the surge arrester GLD terminal and the earth terminal on the 11 kV distribution transformer tank.
- c) The flexibility and length of the ground leads shall be such that it allows the GLD to operate correctly by isolating the arrester permanently.
- d) The flexible ground leads shall be bare.

Note: Insulated or covered leads are not acceptable, because the coverings tend to become hard thereby hampering the GLD operation.

7.3.14.9 Markings

The surge arrester and GLD shall have the following indelible markings:

- manufacturer's name or trademark;
- product code/type designation;
- rated voltage;
- lightning impulse discharge current;
- maximum continuous operating voltage; and
- year of manufacture.

7.3.15 Capitalisation formula

7.3.15.1 The following capitalisation formula will be used to calculate the "total cost of ownership" for each 11 kV distribution transformer offered:

$$\text{Total cost of ownership [Rands]} = A \text{ [Rands]} + \text{NLLF [R/kW]} \times P_{NL} \text{ [kW]} + \text{LLF [R/kW]} \times P_{LL} \text{ [kW]} \dots\dots(1)$$

where:

- A** – is the "Capital cost per unit (Excl. VAT)" in [Rands], as submitted by the Tenderer in column E of **SECTION 8: BILL OF QUANTITIES**, for each item.
- NLLF** – is the No-load loss factor in [R/kW] that is calculated using equation 2 below.
- P_{NL}** – is the guaranteed No-load loss in [kW], as declared by the Tenderer in column G of **SECTION 8: BILL OF QUANTITIES**, for each item.
- LLF** – is the Load loss factor in [R/kW] that is calculated using equation 3 below.
- P_{LL}** – is the guaranteed Load loss in [kW], as declared by the Tenderer in column J of **SECTION 8: BILL OF QUANTITIES**, for each item.

The **NLLF** is calculated using the following formula:

$$\text{NLLF} = 12 \times (\text{MD} \times \text{PVA}_{MD}) + 8\,760 \times (\text{EC} \times \text{PVA}_{EC}) \dots\dots(2)$$

where:

- MD** – Maximum demand charge (purchase price of electricity)
- §PVA_{MD}** – Present value of annuity of the maximum demand charge
- EC** – Energy charge (purchase price of electricity)
- §PVA_{EC}** – Present value of annuity of the energy charge

§Present value of annuity (used to discount future cash flows over 25 years to present values)

The **LLF** is calculated using the following formula:

$$\text{LLF} = 12 \times (\text{MD} \times K^2 \times G^2 \times \text{PVA}_{MD}) + 8\,760 \times (\text{EC} \times \text{TLF} \times G^2 \times \text{PVA}_{EC}) \dots\dots(3)$$

where:

- MD** – Maximum demand charge (purchase price of electricity)
- K** – Transformer peak responsibility factor (contribution of the transformer load to the system peak)
- G** – Transformer peak ratio (ratio of the transformer peak load versus its rated capacity)
- §PVA_{MD}** – Present value of annuity of the maximum demand charge
- EC** – Energy charge (purchase price of electricity)
- TLF** – Transformer loss factor = $(0,8 \times \text{LF}^2) + (0,2 \times \text{LF})$
- LF** – System load factor
- §PVA_{EC}** – Present value of annuity of the energy charge

§Present value of annuity (used to discount future cash flows over 25 years to present values)

The following data was used to calculate the **NLLF** detailed in equation 2 and **LLF** detailed in equation 3:

- Maximum demand charge: **R 24,17/kVA**
- Transformer peak responsibility factor: **0,68**
- Transformer peak ratio: **0,68**
- Energy charge: **R 1,32/kWH**
- System load factor: **0,75**
- Economic life of the transformer used for the PVA: **25 years**

The **NLLF** is therefore = **98 031 R/kW** and the **LLF** is therefore = **27 045 R/kW**

The **NLLF** and **LLF** is included in equation 1 as follows:

$$\text{Total cost of ownership [Rands]} = A \text{ [Rands]} + 98\,031 \text{ [R/kW]} \times P_{NL} \text{ [kW]} + 27\,045 \text{ [R/kW]} \times P_{LL} \text{ [kW]}$$

"Capital Cost per unit (Excl. VAT)"
submitted by the Tenderer in
column E of **SECTION 8**

No-Load Loss declared by the
Tenderer in column G of
SECTION 8: BILL OF
QUANTITIES

Load Loss declared by the
Tenderer in column J of
SECTION 8: BILL OF
QUANTITIES

7.3.15.2 The Tenderer shall submit, with Tender documents, the **manufacturer test/design reports** detailing the guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** for each 11 kV distribution transformer detailed in **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15 of SECTION 3**.

7.3.15.3 Tenderers shall ensure that the guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** in each **manufacturer test/design report** is identical to those declared in the corresponding **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15 of SECTION 3**.

7.3.15.4 Tenderers shall ensure that the guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** reflecting in columns G and J, respectively, of **SECTION 8: BILL OF QUANTITIES** are identical to those declared in the corresponding **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15 of SECTION 3**, and by inference, identical to the **no-load loss (P_{NL})** and **load loss (P_{LL})** reflecting in the respective **manufacturer test/design report** submitted.

7.3.15.5 The guaranteed **no-load loss (P_{NL})** and **load loss (P_{LL})** for each 11 kV distribution transformer detailed in **RETURNABLE DOCUMENTS 1 to 8, Ref. No.15 of SECTION 3** shall not be greater than the losses detailed in **Table 2** of SANS 780:2021 for three-phase windings.

7.3.16 Drawings

Tenderers shall submit detailed drawings (1 × hardcopy and 1 × electronic copy), in accordance with this specification, for each item offered in **SECTION 8: BILL OF QUANTITIES**.

7.3.16.1 11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 1 to 3 of SECTION 3

The following information shall be submitted on the drawings:

- general assembly (GA) with detailed dimensions and abbreviations;
- surge arrester dimensions noting that the relevant clearance should be indicated for the minimum and maximum values;
- position of tapping switch and tap arrangement;
- single pole mounting bracket (applicable to the 50 kVA and 100 kVA distribution transformers);
- mounting hole dimensions;
- terminal arrangement and labelling;
- earthing terminals;
- bushing (including clamp) and flag detail; and
- rating and diagram plate layout.

7.3.16.2 11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 4 to 8 of SECTION 3

The following information shall be submitted on the drawings:

- general assembly (GA) with detailed dimensions and abbreviations;
- position of cable termination enclosures and transformer radiator(s);
- position of tapping switch and tap arrangement;
- position of rating and diagram plate;
- position of earthing terminals (tank and cable termination enclosures);
- height of raised base;
- MV and LV gland plate design showing gland hole positions, sizes, thickness and material;
- position of MV cable entry with rubber grommet;
- position of MV cable support clamp;
- distance from MV gland plate to MV bushing centre line;
- position of MV and LV bushings and labelling;
- distance between bushing centres and between outer bushing centres and cable termination enclosure side walls;
- overall height, width and depth of the MV and LV cable termination enclosures; and
- rating and diagram plate layout.

7.3.17 Marking with eThekweni Electricity's unique DC number

7.3.17.1 The Tenderer shall be required to stamp, onto the 11 kV distribution transformer nameplate, a "DC number" provided by eThekweni Electricity.

7.3.17.2 The unique "DC number" will be provided at the time of ordering.

7.3.17.3 The unique "DC number" will be in the format, as an example: "DC 123456".

7.3.18 Test requirements**7.3.18.1 Routine tests**

The routine test requirements shall be in accordance with SANS 780. The following routine tests, undertaken on existing 11 kV distribution transformer units, shall be submitted with Tender documents:

- a) measurement of winding resistance;
- b) measurement of voltage ratio and phase displacement;
- c) measurement of short-circuit impedance and load loss;
- d) measurement of no-load loss and current;
- e) measurement of insulation resistance;
- f) dielectric tests viz. applied voltage test;
- g) dielectric tests viz. induced voltage withstand test;
- h) measurement of paint thickness; and
- i) effectiveness of sealing.

The Tenderer shall ensure that a routine test report is submitted for each 11 kV distribution transformer detailed in **RETURNABLE DOCUMENTS 1 to 8 of SECTION 3**.

7.3.18.2 Type and special tests

Type and special tests shall be in accordance with SANS 780 and undertaken on each 11 kV distribution transformer design.

- a) Tenderers shall submit with Tender documents, the required type and special test reports stipulated in **Table 4** for 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 5 of SECTION 3**.

**Table 4 – Required type and special tests for
11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 1 to 5 of SECTION 3**

RETURNABLE DOCUMENT NO.	Transformer Rating	Type tests				Special tests	
		TEMPERATURE RISE		DIELECTRIC		TANK STIFFNESS	SHORT- CIRCUIT
		Undertaken	Submitted	Undertaken	Submitted	Undertaken	Submitted
1	50 kVA	Yes	Yes	Yes	Yes	Yes	Yes
2	100 kVA	Yes	Yes	Yes	Yes	Yes	Yes
3	200 kVA	Yes	Yes	Yes	Yes	Yes	Yes
4	315 kVA	Yes	Yes	Yes	Yes	Yes	Yes
5	500 kVA	Yes	Yes	Yes	Yes	Yes	Yes

In the event where the above special and/or type tests for a specific 11 kV distribution transformer design as detailed in this specification, is not available, then special and/or type tests for 11 kV distribution transformers that are within the following transformer rating range shall be submitted and is subject to approval:

- 1) Transformer Rating Range 1: 50 kVA, 100 kVA
- 2) Transformer Rating Range 2: 200 kVA, 315 kVA, 500 kVA

- b) Tenderers shall submit with Tender documents, the required type and special test reports stipulated in **Table 5** for 11 kV distribution transformers detailed in **RETURNABLE DOCUMENTS 6 to 8 of SECTION 3**.

**Table 5 – Required type and special tests for
11 kV distribution transformers detailed in RETURNABLE DOCUMENTS 6 to 8 of SECTION 3**

RETURNABLE DOCUMENT NO.	Transformer Rating	Type tests				Special tests	
		TEMPERATURE RISE		DIELECTRIC		TANK STIFFNESS	SHORT- CIRCUIT
		Undertaken	Submitted	Undertaken	Submitted	Undertaken	Submitted
6	800 kVA	Yes	Yes	Yes	Yes	Yes	Yes
7	1 000 kVA	Yes	Yes	Yes	Yes	Yes	Yes
8	1 600 kVA	Yes	Yes	Yes	Yes	Yes	Yes

In the event where the special and/or type tests for a specific 11 kV distribution transformer design, as detailed in this specification, is not available, then special and/or type tests for 11 kV distribution transformers that are within the transformer rating range detailed in **Table 5** shall be submitted and is subject to approval.

7.3.18.3 The distribution transformers detailed in **RETURNABLE DOCUMENTS 1 to 5 of SECTION 3** shall be designed and constructed to withstand, without sustaining any damage, the thermal and dynamic effects of an external short circuit. The ability to withstand these effects of an external short circuit shall be demonstrated by means of type testing each transformer rating. Tenderers shall submit the short circuit withstand type tests for each transformer rating (50 kVA, 100 kVA, 200 kVA, 315 kVA and 500 kVA) detailed in **RETURNABLE DOCUMENTS 1 to 5 of SECTION 3**.

7.3.18.4 The distribution transformers detailed in **RETURNABLE DOCUMENTS 6 to 8 of SECTION 3** shall be designed and constructed to withstand, without sustaining any damage, the thermal and dynamic effects of an external short circuit. The ability to withstand these effects of an external short circuit shall be demonstrated by means of comparison with a reference transformer that has passed the short circuit test successfully, in accordance with SANS 60076-5. **Tenderers shall submit all necessary documentation related to the reference transformer as well as the transformer under evaluation.**

7.3.19 Test requirements for Surge arresters

7.3.19.1 Type tests shall be undertaken in an accredited test facility affiliated with the International Laboratory Accreditation Cooperation (ILAC) and certificates shall be issued in its name. All type test reports shall be submitted with Tender documents.

7.3.19.2 The surge arresters shall be tested in accordance with SANS 60099-4. Tenderers shall submit type test reports with Tender documents.

7.3.19.3 Routine tests

The following routine tests shall be undertaken on every surge arrester delivered:

- a) measurement of reference voltage;
- b) measurement of residual voltage; and
- c) measurement of partial discharge.

7.3.19.4 Type test on surge arrester design

The following type tests shall be undertaken on the surge arrester design:

- a) lightning impulse voltage withstand;
- b) power frequency voltage withstand (wet);
- c) steep current residual voltage;
- d) lightning impulse residual voltage;
- e) long duration current impulse;
- f) operating duty; and
- g) weather ageing.

7.3.19.5 Tests on GLD

The following tests shall be undertaken on the GLD:

- a) time versus current curve;
- b) long duration current impulse withstand;
- c) operating duty; and
- d) repetitive surge withstand ability.

7.3.20 Equipment failure

7.3.20.1 Failures related to items supplied on this contract within the guarantee period shall be referred to the successful Tenderer. Such failures shall be investigated by the successful Tenderer and a detailed written report submitted to eThekweni Municipality within two weeks of the successful Tenderer being notified of the failure. The successful Tenderer's portion of the cost of the investigation shall be for their own account.

7.3.20.2 Where it has been established that the failure was as a result of a manufacturing defect or non-compliance with this specification, the failed equipment shall be replaced (or repaired if agreed by eThekweni Municipality) at the expense of the successful Tenderer.

7.3.21 Handling and transportation

7.3.21.1 The procedure for handling and transportation of 11 kV distribution transformers shall be in accordance with Eskom Standard 240 75655452:2023.

- 7.3.21.2** The 11 kV distribution transformers, during transportation, will experience movement in the longitudinal and lateral axes due to braking operations as well as shocks in the vertical axis due to road conditions and it is therefore preferred that the transportation of these transformers are undertaken with vehicles equipped with an electronic shock-recorder. The shock-recorder shall be able to continuously measure and upload the following parameters onto a cloud service:
- a) movement/shocks on 3 axes;
 - b) free fall height; and
 - c) duration of the movement/shock.
- 7.3.21.3** The shock-recorder shall:
- a) be able to measure data that is time and date stamped; and
 - b) be wireless with the ability to be downloaded, within a 100 m radius, with aid of an opensource software.
- 7.3.21.4** EThekweni Municipality shall download the shock-recorder prior to off-loading the 11 kV distribution transformers and will analyse the amplitude, duration and frequency of the shocks experienced during transportation. In the event of these parameters exceeding the damage limit/fragility level of the transformer, then these transformers will be returned to the manufacturer. The damage limit/fragility level of a distribution transformer is considered to be 9g at 20 Hz.

SECTION 8: BILL OF QUANTITIES

A	B	C	D	E		F	G	H = (F × G)		I	J	K = (I × J)		L = (E + H + K)	
Item	Description	Unit of measure	Estimated Annual quantity	Capital cost per unit (Excl. VAT)		No-load loss factor (NLLF)	No-load loss (P _{NL})	NLLF × NLL (R/kW × kW)		Load loss factor (LLF)	Load loss (P _{LL})	LLF × LL (R/kW × kW)		Total cost of ownership (Excl. VAT)	
				Rands	cents			Rands	cents			Rands	cents	Rands	cents
1	50 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	50			98 031				27 045					
2	100 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	150			98 031				27 045					
3	200 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	150			98 031				27 045					
4	315 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	15			98 031				27 045					
5	500 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	20			98 031				27 045					
6	800 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	15			98 031				27 045					
7	1 000 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	20			98 031				27 045					
8	1 600 kVA, 3-phase, 11 000 V/420 V transformer with mineral oil	Each	10			98 031				27 045					

BIDDING COMPANY FULL NAME: _____

NAME: _____

SIGNED: _____

CAPACITY OF SIGNATORY: _____

DATE: _____ YYYY - MM - DD

SECTION 9: OFFICIAL TENDER FORM

Part A: OFFER BY TENDERER - In response to **Tender Number: 31333-5E** I/we hereby offer to supply the goods/services detailed hereunder in accordance with the Technical Specification, and subject to the Standard and Special Conditions of Tender (Goods/Services), and General and Special Conditions of Contract, which accompanied your Tender (with which I/we acknowledge myself/ourselves to be fully acquainted) to the prices stated in **SECTION 8: BILL OF QUANTITIES**.

I/We hereby agree that this tender will hold good and remain open for acceptance as specified in the Conditions of Tender or during such other period as may be specified in the Special Conditions of Tender.

eThekwini Vendor Portal Registration Number: **PR**

CSD Registration Number: **MAAA**

SARS Pin Number:

Completion of the following is compulsory. Failure to declare the following will invalidate your offer.

Declaration of Interest

Are any of the entity's directors, managers, principle shareholder or stakeholders currently in the service of the state or have been in the service of the state in the past twelve (12) months? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Is any spouse, child or parent of the entity's directors, managers, principle shareholder or stakeholder currently in the service of the state or have been in the service of the state in the past twelve (12) months? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Name of entity's member	Position in Entity	Name of Relative (if applicable)	Name of State Institution	Nature of Relationship
Do you or any other directors, managers, principle shareholder or stakeholder of your entity have any relationship (spouse, family, friend, associate) with persons in the service of the state and/or who may be involved with the evaluation of this quotation? If yes please furnish particulars below <input type="checkbox"/> Yes <input type="checkbox"/> No				
Name of entity's member	Position in Entity	Name of Relative (if applicable)	Name of State Institution	Nature of Relationship

Refer to the Consolidated MBD Documents in Section 4(d) for the definition of "in service of the State"

*Signature: _____

*Name (capitals): _____

Date: _____

Capacity: _____

*Name of Business: _____

Tel: _____

Address: _____

Fax: _____

* Denotes Mandatory Information

Failure to complete the Mandatory Information and sign this Tender Form will invalidate the tender

Part B: ACCEPTANCE BY PURCHASER - The Purchaser, as represented by the following Official, hereby accepts the Tenderer's offer in terms of the Conditions of Tender, Specifications, and Conditions of Contract.

Signature: _____

Name (capitals): _____

Date: _____

Capacity: _____