

## **CLUSTER**

TRADING SERVICES

## UNIT

**ELECTRICITY** 

## DEPARTMENT

**HV OPERATIONS** 

# PROCUREMENT DOCUMENT GOODS / SERVICES

Documents are to be obtained, free of charge, in electronic format, from the National Treasury's eTenders website or the eThekwini Municipality's website.

Tender No: E.9811

SUPPLY, DELIVERY AND OFFLOADING OF HIGH AND MEDIUM VOLTAGE XLPE, OIL-FILLED AND PAPER INSULATED LEAD COVERED(PILC) CABLE ACCESORIES FOR A 36 MONTH PERIOD.

## **CLARIFICATION MEETING AND QUERIES**

Clarification Meeting: There will be no clarification meeting.

Queries can be addressed to:

General / Contractual: Nyaniso Millo; Tel: 031 311 9282; eMail:

Nyaniso.mlilo@durban.gov.za

Gugu Shozi; Tel: 031 319 1298 email: gugu.shozi@durban.gov.za.

Technical: Email queries to be submitted 06 July 2023 and consolidated

question and answers will be uploaded 13 July 2023

## **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, 21 July 2023

Time: 11:00am

## FACSIMILE, eMAIL or POSTED TENDERS WILL NOT BE ACCEPTED

#### Issued by:

**ETHEKWINI MUNICIPALITY** 

Deputy Head: HV OPERATIONS

Issued: June 2023 Document Version: 24/02/2023(b)

NAME OF TENDERER:	
Tender Price: R	VAT Registered: YES / NO
Telluer Filce. N	(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.: E.9811

DESCRIPTION: SUPPLY, DELIVERY AND OFFLOADING OF HIGH AND MEDIUM

VOLTAGE XLPE, OIL-FILLED AND PAPER INSULATED LEAD COVERED(PILC) CABLE ACCESORIES FOR A 36 MONTH PERIOD.

CLOSING DATE / TIME: Friday, 21 July 2023 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 work 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 A	pplica	ble
ls your entity registered o	on the <b>eThek</b>	wini Mun	nicipal	ity's sı	upplier	datab	ase?			S / NO	
<ul> <li>If YES insert your P</li> </ul>	R Number:							. рі	R		
ls your entity registered o	on the <b>Natior</b>	al Treas	ury Ce	entral S	Supplie	er Data	base	• •		S / NO	
• If YES, insert your N	/IAAA Numbe	er:						MA	<b>AAA</b>		
Insert a SARS Tax Comp	oliance Status	s PIN									
ls your entity VAT registe	ered?									S / NO	
If YES insert Vat Reg	jistration Nur	nber:									
Has a <b>Declaration of M</b> u	ınicipal Fees	<b>s</b> been su	ıbmitte	d?					YES	S / NO	
Has a <b>Declaration of Int</b>	erest (MBD	4) been s	ubmitt	ed?					YES	S / NO	
Has a <b>Declaration for P</b> submitted?	rocurement	Above R	10 Mil	lion (N	1BD 5)	been			YES	S / NO	
Has a <b>Preference Point</b> s	s Claim (MB	D 6.1) be	en sub	mitted'	?				YES	S / NO	
Has a <b>Declaration of Bi</b>	dder's Past	SCM Pra	ctices	(MBD	8) bee	n subm	itted?		YES	S / NO	
Has a <b>Certificate of Ind</b> e	ependent Bi	d Determ	inatio	n (MBI	O 9) be	en sub	mitted?	?	YES	S / NO	
Are you the accredited works offered? If YES, of the second secon								/	YES	S / NO	
Signature of Tenderer:						Da	ıte:				
Name / Surname:									(in bloc	k capita	als)
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. <u>DEFINITIONS</u>

#### 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 eThekwini 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 eThekwini 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. <u>TENDER INFORMATION</u>

#### (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 eThekwini 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 <u>compulsory</u> 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 <u>must</u> 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 <u>will not</u> 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 <u>shall not</u> be accepted for consideration and shall be returned to the *Tenderer*.

#### (6) <u>Tender Validity and Withdrawal of Tenders</u>

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*:

- 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 eThekwini 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 Biding 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. <u>INFORMATION TO BE SUPPLIED REGARDING</u> <u>SUB-CONTRACTORS</u>

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.

## 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* <u>must</u> 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.

## 1. DELIVERY, RISK, PACKAGES, ETC

- Unless otherwise provided, all goods are to be supplied only against the form of order issued by the *Municipality*.
- 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:
  - (a) Submit documentary proof of the rate of exchange; and
  - (b) 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.
- (2) 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.
- (3) 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 eThekwini 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<sub>EV</sub>) 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:

$$N_{FO} = W \left(1 + \frac{Pt - Pmax}{Pmax}\right)$$

## **GOODS and SERVICES**

The financial offer will be scored using the formula:

$$N_{FO} = W \left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

Where the value of W is:

- (a) 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) **Pmax** is the comparative offer of the most favourable comparative offer (highest acceptable tender).
- (c) **Pmin** is the comparative offer of the most favourable comparative offer (lowest acceptable tender).
- (d) **Pt** 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. <u>NEGOTIATIONS WITH PREFERRED BIDDERS</u>

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.

#### 8. ACCEPTANCE OF BID

- 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 **Special Conditions of Tender** 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 116 pages.

## SCT 3(2) TENDER INFORMATION: Obtaining Tender Documentation

Documents are issued by the eThekwini Municipality electronic format.

Electronically downloaded documentation is obtainable from:

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

The entire 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 Millo; Tel: 031 311 9282; eMail: Nyaniso.mlilo@durban.gov.za

All email queries must be sent on/before 06 July 2023 and will thereafter be consolidated and uploaded on 13 July 2023.

Technical Queries are to be directed to:

Gugu Shozi; Tel: 031 319 1298 email: gugu.shozi@durban.gov.za. Email queries to be submitted 06 July 2023 and consolidated question and answers will be uploaded 13 July 2023

## 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, 21 July 2023 at 11:00am.

Bidders are to include, with their "hard copy" submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the bidder's name, eg. "E-9811 – Tenderers Name.PDF". The memory-stick must be securely fixed to the paper submission.

## 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 included into the bid price of items. Delivery of goods shall be by road to eThekwini Electricity at 11 Electron Road (off Umngeni Road), Springfield Durban.

## SCT 14 EVALUATION PROCESS

Each item of SECTION 8 will be evaluated separately. The evaluation will be based upon the following:

- a) The Tenderer's compliance to the technical specification detailed in **SECTION 7** and **RETURNABLE DOCUMENTS 1** to **23** of **Section 10**;
- b) the total price per item over three (3) years.
- c) The 80/20 procurement point system. Each Tenderer must submit a certified copy of a BEE verification certificate if preferential points are to be claimed.

## 14.2 Preference Point System and Specific Goals

The definitions as per the SCM Policy are applicable.

Preference Points (either 20 or 10) will be derived from <u>points claimed</u> 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.

## **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 100%					
Ownership Categories	Criteria		80/20	90/10	
Race: Black (w1)	0%		0	N/A	
	>0% and <51%		4	N/A	
	≥51% and <100%		7.5	N/A	
	100%		10	N/A	
Gender: Female (w2)	0%		0	N/A	
	>0% and <51%		3.2	N/A	
	≥51% and <100%		6	N/A	
	100%		8	N/A	
Disabilities (w3)	0%		0	N/A	
	>0% and <51%		0.8	N/A	
	≥51% and <100%		1.5	N/A	
	100%		2	N/A	

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

- Companies and Intellectual Property Commission registration document (CIPC)
- CSD report.
- 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:

w1 = 50%, w2=40%, w3=10% (where: w1 + w2 + w3 = 100%)

## 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, <u>at time of closing of tenders</u>, 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.

## **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 <u>additional</u> schedules, forms, certificates can be found in Section 10: "Annexures".

SOLE

PROPRIETOR

#### 1) **AUTHORITY OF SIGNATORY**

COMPANY

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

CLOSE

CORPORATION

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

**PARTNERSHIP** 

		CORPORATION		V LIV	IUKE		PROPRIET	OK	
Refer to Notes at the bottom of the page									
		ed, being the Chairpe Owner (Sole Proprietor							
nereby authoris	se Mr/	Mrs/Ms							
acting in the ca	apacity	<i>t</i> of							
to sign all docu it on our behalf		s in connection with th	e tender for Co	ontract No. E.	. <mark>9811</mark> a	nd any	contract r	esulti	ng from
NAME			ADDRESS		S	SIGNATI	JRE	[	DATE
					T				
1									
					1				

**JOINT** 

VENTURE

## **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.

confirms that the informa	rsigned, who warrants that they are authorised to sign on behalf tion contained in this form is within my personal knowledge and nd that the requested documentation has been included in t	is to the best of my belief both
NAME (Block Capitals):	:	Date
SIGNATURE:		

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**Date** 

## TENDER No: E.9811 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 eThekwini 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 be 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.

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NAME (Block Capitals):

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:	

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## 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.
- 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.

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.  3.8 Are you presently in the service of the state?  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:	3.1	Name of enterprise			
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?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO		Name of enterprise's representative			
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?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.2	ID Number of enterprise's representative			
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?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.3	Position enterprise's representative occupies in the enterprise			
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?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.4	Company 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?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.5	Tax Reference number			
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?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.6	VAT registration number			
3.8 Are you presently in the service of the state?  If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.7	partnerships, their individual identity numbers and state e paragraph 4 below. In the case of a joint venture, information	mployee numbers mus	t be indi	cated in
If yes, furnish particulars:  3.9 Have you been in the service of the state for the past twelve months?  YES NO				Circle Ap	plicable
3.9 Have you been in the service of the state for the past twelve months?  YES NO	3.8	Are you presently in the service of the state?		YES	NO
,		If yes, furnish particulars:			
If yes, furnish particulars:	3.9	Have you been in the service of the state for the past twelve m	onths?	YES	NO
		If yes, furnish particulars:			

	any have any interest in an	y other related companies	or	YES	NO		
stakeholders of this compa	any have any interest in an	y other related companies	or	YES	NO		
3.14 Do you or any of the direct							
principle shareholders or s  If yes, furnish particulars:		1123	140				
3.13 Are any spouse, child or pa				YES	NO		
stakeholders in service of the state?  If yes, furnish particulars:					NO		
3.12 Are any of the company's	_	ers, principle shareholders of	or	YES	NO		
and or adjudication of this If yes, furnish particulars:	DIQ?						
	vice of the state who may	her) between any other bid be involved with the evalua		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?							

4

## 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 Ap	plicable
1.0	Are y	ou by law required to prepare annual financial statements for auditing?	YES	NO
	1.1	If YES, submit audited annual financial statements for the past three years or establishment if established during the past three years.	since the	date of
2.0	muni	ou have any outstanding undisputed commitments for municipal services towards any cipality for more than three months or any other service provider in respect of which nent is overdue for more than 30 days?	YES	NO
	2.1	If NO, this serves to certify that the bidder has no undisputed commitments for towards any municipality for more than three months or other service provider in payment is overdue for more than 30 days.		
	2.2	If YES, provide particulars.		
3.0	inclu	any contract been awarded to you by an organ of state during the past five years, ding particulars of any material non-compliance or dispute concerning the execution ch contract?	YES	NO
	3.1	If YES, provide particulars.		
4.0	porti	any portion of goods or services be sourced from outside the Republic, and, if so, what on and whether any portion of payment from the municipality / municipal entity is cted to be transferred out of the Republic?	YES	NO
	4.1	If YES, provide particulars.		
	out o	I by 1.1 above, tenderers are to include, at the back of their tender submis f their audited annual financial statements.		
infor	matior	undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, concentions on this form is within my personal knowledge and is to the best of my belief by the fequired, that the requested documentation has been included in the tender set.	oth true and	d correct,
NAM	IE (Blo	ock Capitals):	Date	
SIGN	IATUF	RE:		

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## 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 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included).
  - 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 **80/20 preference point system**.
- 1.3 Preference Points for this tender shall be awarded for:
  - Price and Specific Goals: 80 (price) and 20 (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:

## 80 / 20 Points System

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

#### Where:

Ps = Points scored for price of tender under consideration Pt = Price of tender under consideration Pmin = 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 <u>points claim</u> for each of the Specific Goals <u>in the</u> shaded blocks.

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (80/20 system)	Maximum Number of points ALLOCATED (90/10 system)	Number of points CLAIMED (80/20 system)	Number of points CLAIMED (90/10 system)
Ownership Goal: Race (black)	10	n/a		n/a
Ownership Goal: Gender (female)	8	n/a		n/a
Ownership Goal: Disabilities	2	n/a		n/a
1		n/a		

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:
  - 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 s bid.	ubmitted	with the
		Circle Ap	plicable
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.)	YES	NO
	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.		
	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)?	YES	NO
	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.		
	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.		

TENDER No: E.9811

4.4	charg	the bidder or any of its directors owe any municipal rates and taxes or municipal es to the municipality / municipal entity, or to any other municipality / municipal, that is in arrears for more than three months?	YES	NO
	4.4.1	If YES, provide particulars.		
4.5	organ	ny contract between the bidder and the municipality / municipal entity or any other of state terminated during the past five years on account of failure to perform on or y with the contract?	YES	NO
	4.5.1	If YES, provide particulars.		
		igned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms this form is within my personal knowledge and is to the best of my belief both true and		formation
I acce		t, in addition to cancellation of a contract, action may be taken against me should this	declaratio	n prove to
NAME (Block Capitals):		Date		
SIGN	ATUR	=================================		

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

## **NOTES**

- Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.
- 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**<sup>1</sup> 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**).<sup>2</sup> 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;
  - 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**.
- 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:					
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,					

(c) provides the same goods and services as the bidder and/or is in the same line of business as the

The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between

bidder.

6.

abilities or experience.

- 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.
- 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:	

<u>SECTION 5</u> Version 24/02/2023 Page 29 of 115

## **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.
- "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.
- "Contract price" means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
- "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.
- "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.
- "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 market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
- "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.
- "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 noncompetitive levels and to deprive the bidder of the benefits of free and open competition.
- 1.14 "GCC" means the General Conditions of Contract.
- "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.

- "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.
- "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.
- "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.

#### 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 nonrefundable 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.
- 3.2 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.

### 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:
  - performance or supervision of on-site assembly and/or commissioning of the supplied goods;
  - 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
  - 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:
  - 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:
    - advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements;
    - 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.

#### 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:
  - 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:
  - 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 antidumping 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,
  - 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 0f 1998.
- 35.3 If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

### **SECTION 6: SPECIAL / ADDITIONAL CONDITIONS OF CONTRACT**

The **Conditions of Contract** make reference to the **Special Conditions of Contract** (SSC) for details that apply specifically to this bid. The **Special Conditions of Contract** 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.

### SCC 1 CONTRACT

This contract will commence upon issue of letter of award up to 36 months.

### SCC 2 PERFORMANCE SECURITY

The liability of the Performance Security shall be Nil.

#### SCC 3 PACKING

Marking, labelling, and packaging of accessories shall be in accordance with clause 6.4 of NRS 077:

- 1. Each item shall have all the accessories in one box.
- All cable accessories shall be packed in containers that are suitable for storage over extended periods.
- 3. Each accessory shall be stored in one box.
- 4. The box shall be of adequate size to fit all bill of materials (BOM) of the cable accessories without squashing them tightly.
- 5. All components that form part of an accessory shall be marked with a part number.
- 6. This part number shall be referenced in the bill of materials (BOM) and the parts list.
- Components that are physically impossible to mark shall be individually packed and the packaging shall be marked.
- 8. Components with a specific shelf life should be declared and marked.
- 9. Each crate shall contain:
  - a) Part list.
  - b) Order number written in font not less 50 mm.
  - c) A copy of the installation instructions and the bill of materials (BOM).
  - d) A delivery note for each accessory supplied to allow eThekwini electricity to confirm that all items on the BOM has been delivered, and for record purposes.

### SCC 4 **DELIVERY AND DOCUMENTS**

The accessories shall be delivered with 12 weeks from the receipt of order and shall be delivered by road to eThekwini Electricity at 11 Electron Road (off Umngeni Road), Springfield Durban including **Technical Schedules** in **Section 10**, Bill and of materials and a delivery note

### SCC 6 TRANSPORTATION

The cost of transport shall be embedded into a bid price for each item. No additional transport costs shall be paid.

### SCC 7 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 8 PRICES

Prices are fixed for each 12-months period, for the 36 months period.

### SCC 9 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** of **ACT 9**.

#### SCC 10 **PENALTIES**

If the supplier fails to deliver any or all the goods or to perform the services within the period(s) specified in the **DELIVERY PERIODS SCHEDULE** of **ACT 9**, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price a penalty of 3% of the order value for each week delivery is delayed. EThekwini electricity 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 R10m, the Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section of the Council's current Supply Chain Management Policy.

### ACC2 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 30 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.

### ACC3 SATISFACTORY PERFORMANCE

The supplier shall employ for the purpose of this contract only such personnel as are careful and competent and the Municipality shall be at liberty to object to and require the supplier to remove from the job forthwith any person, including supervisory staff, employed by the supplier who, in the opinion of the Municipality, misconducts himself/herself or is incompetent or negligent in the proper performance of his/her duties and such person shall not again be employed upon this contract without the permission of the Municipality.

#### ACC4 OCCUPATIONAL INJURIES AND DISEASES ACT

This act replaces the Workmen's Compensation Act:

The supplier shall, before commencement of work, produce documentary proof to the Deputy Municipal Manager, Treasury: Finance that he has complied in all respects with the provisions of the Occupational Injuries and Diseases Act. The supplier undertakes that he/she will perform and comply with all provisions of the Occupational Injuries and Diseases 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.

### ACC5 DAMAGE TO PERSONS AND PROPERTY

- (1) The supplier <u>shall</u> 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.
- (2) The supplier enters 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.

### ACC6 RATE OF EXCHANGE VARIATION

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

forward cover shall be from a reputable South African bank. The Contractor is to confirm with the employer prior to placing forward cover if the service provider is acceptable.

Any increase or decrease between the basic rate of exchange as at 12:00 on the date of close of the bid 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 Contractor to arrange forward exchange cover, the Contractor shall be liable should there be an increase in the basic rate of exchange occurring after the last-mentioned date.

The bank charges incurred in obtaining the forward exchange cover must be included in the Tenderer's bid.

### ACC7 ESTIMATED QUANITITIES

The quantities stated in **Section 8** are applicable for evaluation purposes only. The final quantity of goods and services required shall vary, depending on the total number of actual instances a service/goods will be required over the Contract Period. The rates tendered shall be applicable, irrespective of the total quantity of goods and services procured over the contract duration.

### SECTION 7: SCOPE AND SPECIFICATION OF REQUIRED SUPPLY / SERVICES

### 7.1 SCOPE

This specification covers eThekwini Electricity's requirements for the design, manufacture, testing, supply, delivery and off-loading of high voltage (HV) cable accessories for:

- **7.1.1** Single core 132 kV, 33 kV and 11kV XLPE (cross-linked Polyethylene) insulated aluminium or copper conductor cable with corrugated aluminium metallic sheath complete with accessories for earthing.
- 7.1.2 Single core and three core Paper Insulated Lead Covered (PILC) cable complete with earthing accessories.
- 7.1.3 Single and three core 33 kV and 132 kV, oil insulated cable with earthing accessories as specified in the **Bill of Quantities** and **Technical requirement schedules**. The items covered in this specification are:
  - (a) 132 kV XLPE 3-piece Screen Break Straight Joint.
  - (b) 132 kV Stress cones.
  - (c) 132 kV Connectors.
  - (d) 132 kV XLPE single piece Screen Break Straight joint.
  - (e) 132 kV Three-core-oil Straight joint
  - (f) 132 kV XLPE Single-Core to oil single core transition joint.
  - (g) 132 kV Three-Core Oil to Single-Core Oil Splitter Box.
  - (h) 132 kV Three-Core Oil to XLPE Trifurcating Transition Joint.
  - (i) 132 kV XLPE GIS Switchgear Dry-Type Plug-in Termination.
  - (j) 132 kV XLPE Transformer Dry-Type Plug-in Termination.
  - (k) 132 kV XLPE Outdoor Termination
  - (I) 33 kV XLPE plug-in dry type transformer termination.
  - (m) 33 kV XLPE outdoor termination.
  - (n) 33 kV oil-filled three-core to 33 kV single-core XLPE transition joint.
  - (o) 11 kV plug-in dry type transformer termination.
  - (p) 33 kV PILC three-core to 33 kV single-core XLPE transition joint.
  - (g) 33 kV PILC single-core transformer termination.
  - (r) 33 kV PILC single-core indoor termination.
  - (s) 33 kV PILC single-core outdoor termination.
  - (t) 11 kV PILC single-core transformer termination.
  - (u) 11 kV single-core 630 mm<sup>2</sup> PILC straight joint.
  - (v) 11 kV single-core 630 mm<sup>2</sup> PILC copper cable.
  - (w) 33 kV single-core 300 mm<sup>2</sup> PILC Aluminium cable.
  - (x)  $11 \text{ kV three-core } 300 \text{ mm}^2$  PILC aluminium cable.
  - (y) 11 kV three-core 300 mm<sup>2</sup> PILC copper cable.
  - (z) Link disconnecting boxes for single-line bonding with sheath voltage limiter and earth.
  - (aa) Link disconnecting boxes for three-line with sheath voltage limiter and earth.
  - (bb) Link disconnecting boxes for cross bonded(six line) with sheath voltage limiter and earth.

(cc) Training

### 7.2 NORMATIVE REFERENCES

**7.2.1** The requirements of this specification shall be designed, manufactured, and tested according to the standards specified below. These standards are subject to revision and bidders are encouraged to investigate and apply the most recent editions.

7.3

No.	Standard	Description
a)	NRS 077:2021	XLPE-insulated cables and accessories for systems with nominal voltages of 44 kV, 66 kV 88 kV and 132 kV.
b)	IEC 60840	Power cables with extruded insulation and their accessories for rated voltages above 30 KV (Um = 36 kV) up to 150 KV (Um = 170 kV)
c)	IEC 62271-209	Cable connections for gas-insulated metal enclosed switchgear for rated voltages of 72,5 kV and above.
d)	IEC 60071-1	Insulation co-ordination - Part 1: Definitions, principles, and rules
	IEC 60071-2	Insulation co-ordination - Part 2: Application guidelines
e)	IEC 60141-1	Tests on oil-filled cable and gas-pressure and their accessories-Part 1; Oil-filled, paper or polyethylene paper laminate insulated, metal-sheathed cables and accessories for alternating voltages up to and including 500 kV.
f)	SANS 1332:2013	Accessories for medium-voltage XLPE and impregnated paper-insulated power cables (3,8/6,6 kV to 19/33 kV)
g)	NRS 028	Crimped cable lugs and ferrules for copper and aluminium conductors.
h)	NRS 053: 2008 adopted as SANS 1332: 2008	Accessories for medium-voltage power cables (3,8/6,6 kV to 19/33 kV)
	SANS 60228	Conductors of insulated cables.
i)	SANS 10198	
j)	SANS 60229:2015	Electric cables — Tests on extruded over sheaths with a special protective function
k)	NRS 000	Compilation of NRS and other definitions used in electricity supply industry.

### 7.4 <u>TERMS AND DEFINATIONS</u>

**7.4.1** The terms and definitions in SANS 60840, NRS 077 and NRS 000 shall apply to this specification or any other related revised standards.

### 7.5 **ABBREVIATIONS**

The abbreviations in NRS 077 and the following shall apply:

No.	Abbreviation	Explanation
7.4.1	AC	Alternating Current
7.4.2	HV	High Voltage
7.4.3	PE	Polyethylene
7.4.4	PVC	Polyvinyl Chloride
7.4.5	DC	Direct current
7.4.6	U <sub>0</sub> / U	Rated Voltage
7.4.7	U <sub>m</sub>	Highest standard operating voltage
7.4.8	GIS	Gas-insulated switchgear
7.4.9	USCD	Unified Specific Creepage Distance
7.4.10	PILC	Paper insulated lead covered cable

### 7.6 ENVIRONMENTAL AND OPERATING CONDITIONS

Accessories considered shall operate without any challenges and carry the rated load of the cable in worst climatic and atmospheric conditions that can occur within eThekwini Municipality. Except where otherwise required by the Engineer, the cable accessories supplied shall be designed to operate satisfactory when subjected under the following conditions:

7.5.1	Altitude	Not exceeding 1 800 m
7.5.2	Ambient air temperature	From 5 °C to 40 °C
7.5.3	Climate	Humid, salt laden and subtropical
7.5.4	Maximum relative humidity	1000 mm
7.5.5	Average solar radiation level at the coast	98%
7.5.6	Pollution type	Heavy marine and industrial pollution
7.5.7	System frequency	50 Hz
7.5.8	Ground thermal resistivity	120 thermal ohms

### 7.7 SYSTEM ELECTRICAL CONDITIONS

Accessories required are for the cables listed in **Schedule B**, section 7.7.29 with the follow characteristics:

(a)	Rated Frequency [F]	50 HZ
(b)	Rated Voltage [U <sub>0</sub> ] [U]	76 kV / 132 kV
(c)	Maximum operating voltage [U <sub>m</sub> ]	145 kV
(d)	Lighting impulse voltage $[\mathrm{U}_p]$ (1.2/50 $\mu_{\scriptscriptstyle S}$ )	650 kV
(e)	Rated short circuit current (sheath) & duration	50 kA per (1 sec)
(f)	Maximum dielectric stress at conductor	8 kV/mm
(g)	Maximum dielectric stress at insulation screen	4 kV/mm
(h)	Minimum earth fault rating of earth conductor for 1 second	40kA
(i)	Maximum operating temperature for insulation	90 °C
(j)	maximum allowed temperature under fault conditions for insulation	250 °C
(k)	Maximum D.C. test voltage and duration for outer sheath	10 kV for 1 minute
(1)	Minimum impulse withstands at [U $_p$ ] (1.2/50 $\mu_s$ ) for outer sheath	95 kV

# 7.8 <u>TECHNICAL REQUIREMENTS FOR XLPE, OIL-FILLED AND PILC CABLE ACCESSORIES FOR VOLTAGES; 11 kV, 33 kV and 132 kV</u>

#### 7.8.1 CABLE JOINTS

- 7.7.1.1 Joints shall be designed and manufactured to fully comply with requirements detailed in NRS 077, NRS 053, SANS 1332:2013, IEC 60141-1 and this specification. The joints shall also be tested under the conditions specified in SECTION 7.5 and be suitable for the cables mentioned in SECTION 7.7.29 and shall contain all the materials required to:
  - (a) Mechanically and electrically connect to the types and sizes of the specified cables.
  - (b) Meets the same standards as the cables mentioned in SECTION 7.7.29
  - (c) Provide the necessary level of insulation and stress control within the joint.
  - (d) Restore the integrity of the core screen.
  - (e) Protects the cable insulation against water ingress.
  - (f) Restore the integrity of the oversheath and shall be able to carry out the periodic sheath integrity tests.

- (g) Restore the integrity of the metallic sheath on a cable.
- (h) The joints required shall be straight through and screen interrupting suitable of jointing the types of cables listed in **SECTION 7.7.29** and be able to operate under the conditions listed in **CLAUSE 7.6.**
- (I) The joints shall be for all kinds of cable installation surfaces including directly buried to ground.
- (j) The joint shall be a pre-moulded 3-piece joint body with complete accessories and type tested according to IEC 60840 standard.
- (k) The joint body shall have electrical stress control system.
- (I) The joint body shall provide the perfect compression force for optimised electrical performance. (m) Inside the joint body, the method used to join conductors at joint positions shall be compression, torque shear bolt or plug-in type. The connector shall be capable of connecting conductor sizes and type a indicated in Schedule B.
- (n) The connector shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- (n) The joint shall have two halves copper casings radial moisture sealing metallic barrier.
- (o) The two-part sectionalized copper casing shall admit all types of cable screen connection.
- (r) Cross bonding for screen interruption joint and straight bonding for straight through joints shall be done between the two sectionalized copper casing using bonding leads.
- (p) Bonding lugs with M12 fixing holes shall be provided to facilitate the connection of bonding leads at the sectionalized copper casing for straight through or screen interruption joint.
- (r) The coffin box of fibre glass reinforced outside cover shall be used as outer sealing and protection system of the joint.
- (t) The coffin box shall have adequate access holes at the top for filling of resin compound.
- (u) Bidders shall specify the installation time required.
- (v) The conductor screen dimensions are provided in **Schedule B**.
- (w) Bidders shall submit details and prices of any special tool or accessories required necessary for installation.

#### 7.7.2 TERMINATIONS

Terminations shall be tested under the conditions specified in **CLAUSE 7.6**, be suitable for terminating the type of cables specified in **SECTION 7.7.29** and contain all materials required to:

- (a) Maintain the insulation to the same performance standard as the cable.
- (b) Be compatible with conditions listed in CLAUSE 7.5.
- (c) Withstand cable thermomechanical lo ads and external forces such as wind, ice and busbar loading as per IEC 60071-1 and IEC 60071-2 standards.
- (d) Restore the insulation integrity of the oversheath.
- (e) Protects the cable insulation and sheath against water ingress.
- (f) Accommodate both vertical and horizontal installations.
- (g) Be of corrosion resistant materials.
- (h) Bonding leads be terminated at the termination with lugs that have M12 fixing holes.
- (i) Provide effective termination of the core screen; and

- (j) Provide effective earthing of the core screen.
- (k) The termination shall be of dry self-supporting type, designed, type tested, and routine tested according to IEC 60840, SANS 60815-1, IEEE-48 standards.
- (I) The termination shall be pressure-tight with composite housing that is made of a glass fibre reinforced resin tube with silicone rubber sheds moulded to the tube.
- (m) The termination shall have a prefabricated and factory-tested to IEC 60840 Silicone-rubber stress cone that provides electrical field control by mechanical compression with the insulator cavity.
- (n) The termination shall match the maximum permissible dielectric stress of 4 kV/mm at the insulation screen of the cable.
- (o) The termination shall match the maximum permissible dielectric stress of 8 kV/mm at the conductor and insulation.
- (p) The termination shall be supplied with silicon oil to be used as a di-electric medium.
- (q) The stress cone shall inhibit possible mechanical stress and deformation of the cable insulation surface during operation and shall be capable of accommodating minor radial and longitudinal movement.
- (r) The composite housing and silicone rubber sheds shall withstand the electrical stress associated with continuous operation at 132 kV, under the climatic conditions described in **Clause 7.6** above.
- (s) The termination shall be typically vertical installed and be suitable for mounting on the cable end support.
- (t) The colour and profile of insulator shall be grey uniform sheds.
- (u) The termination base plate and the cable's metallic sheath shall be electrically insulated from the supporting structure by means of self-supporting stand-off insulators.
- (v) The stand-off insulators shall comply with the insulator's properties listed below:

60 s, 50 Hz wet withstand voltage: 2,5 kV r.m.s 60 s, D.C. dry withstand: 10 kV D.C Protected creepage:  $\geq$  25, 4 mm Unprotected creepage:  $\geq$  50, 8 mm

- (w) The cable lug shall be available in shear-off bolt version and be suitable for all conductors made of aluminium or copper.
- (x) The termination shall have a sealing system that must ensure permanent protection against environmental influences of the top assembly of the sealing end.
- (y) The termination shall have a heat shrinkable polymeric tube that is used as an oil sealant at the top assembly of the sealing end.
- (z) The clearance between terminations shall be in accordance with IEC 60071-1.
- (aa)The termination shall be suitable for very heavily polluted atmospheric conditions with unified specific creepage distance (USCD) in accordance with SANS 60815-1 of 53,7 kV/mm for "heavy" to "very heavy" pollution applications whereby the kV value is the phase to earth voltage U.

# 7.7.3 SPECIFIC REQUIREMENTS FOR ITEM 1A IN SCHEDULE A: 132 kV XLPE 3-PIECE SCREEN BREAK STRAIGHT JOINT

- 7.7.3.1 The screen break joint shall be designed such that it may also be used as non-sheath interrupting joint.
- **7.7.3.2** The joint shall be a pre-moulded three piece.
- **7.7.3.3** The joint shall comply with the requirements of IEC 60840 and NRS 077.
- 7.7.3.5 The connector shall be capable of connecting conductor sizes and type as indicated in Schedule B.
  The connector shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- **7.7.3.6** The joint shall be protected by the copper sleeve and protective glass fibre box casing, filled with waterproof compound, or a combination of corrosion proofing tapes having waterproofing/electrical properties to satisfy 5 kV d.c. over sheath integrity test.

### 7.7.4 SPECIFIC REQUIREMENTS FOR ITEM 1B OF SCHEDULE A: STRESS CONES AS PER CABLE RANGES IN SCHEDULE B

- 7.7.4.1 Stress cones shall be suitable for all conductor ranges of 132 kV XLPE cables in Schedule B.
- **7.7.4.2** Stress cones provided shall be compatible with cable joints offered.
- **7.7.4.3** The stress control shall be according to SANS 1332-2013 and NRS 077.
- **7.7.4.4** The stress cones shall be designed tested, approved, and selected according to their restraining capabilities for both mechanical and electrical loads.
- **7.7.4.5** The stress cones shall be designed to prevent marine water ingress and they shall be compatible with operating conditions listed in **clause 7.5**.

### 7.7.5 SPECIFIC REQUIREMENTS FOR ITEM 1C OF SCHEDULE A: CONNECTORS AND THEIR ACESSORIES

- **7.7.5.1** Connectors and their accessories shall be suitable for all conductor ranges 132 kV XLPE cables listed in Schedule B.
- **7.7.5.2** Connectors shall be compatible with offered cable joints.
- **7.7.5.3** Connectors shall be designed and tested to provide necessary stress control of the conductor.
- **7.7.5.4** Connectors shall restore the integrity of the core screen.
- **7.7.5.5** Designed to connect both aluminium and copper conductors.
- **7.7.5.6** Connectors shall be designed in accordance with NRS 028, SANS 60840.

# 7.7.6 SPECIFIC REQUIREMENTS FOR ITEM 2 IN SCHEDULE A: 132 kV XLPE SINGLE-CORE, SINGLE PIECE SCREEN BREAK STRAIGHT JOINT

- 7.7.6.1 The screen break joint shall be designed such that it may also be used as non-sheath interrupting joint.
- **7.7.6.2** The joint shall be a pre-moulded single piece.
- **7.7.6.3** The joint shall comply with the requirements of IEC 60840 and NRS 077.
- 7.7.6.5 The connector shall be capable of connecting conductor sizes and type as indicated in Schedule B.
  The connector shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- 7.7.6.6 The joint shall be protected by the copper sleeve and protective glass fibre box casing, filled with waterproof

compound, or a combination of corrosion proofing tapes having waterproofing/electrical properties to satisfy 5 kV d.c. over sheath integrity test.

## 7.7.7 SPECIFIC REQUIREMENTS FOR ITEM 3 OF SCHEDULE A: 132 kV THREE-CORE OIL STRAIGHT JOINT

- 7.7.7.1 The joint shall be designed for jointing three-core low pressure SCFF cables electrically and hydraulically.
- 7.7.7.2 The joint shall comply in all aspects with the requirements of IEC 60141-1.
- 7.7.7.3 The joint shall be suitable for jointing three core low pressure SCFF cables as indicated in Annexure A3.
- **7.7.7.4** The joint shall be designed to operate at a sustained internal pressure ranging from 20 kPa to 525 kPa, with transient pressure of up to 800 kPa.
- **7.7.7.5** The connectors shall be designed to enable the cores to be bounded together to form a tight fit in the joint shell and prevent lateral movement and buckling due to thermo-mechanical expansion of the cable cores.
- **7.7.7.6** The connector supplied with joint shall be of compression, torque-shear, or welded type. The connector shall be capable of jointing conductors' sizes and type as indicated in Schedule B.
- **7.7.7.7** The joint shall be designed with a facility for applying partial restriction of the oil flow.
- **7.7.7.8** The joint shall be equipped with a valve at the bottom (lowest point) for oil evacuation and a valve at the top (highest point) for air evacuation.
- **7.7.7.9** The joint shall be supplied with sets of paper rolls and crepe paper tapes. Preference shall be given to prechamfered paper rolls. Where pre-chamfered paper rolls are supplied, each roll shall be marked correctly and be stored in a sealed oil tin.
- **7.7.7.10** The metallic sheath shall be connected by means of copper sleeve and it shall be designed with an insulator flange at the centre of the joint to allow for each side of the joint to be earthed separately.
- **7.7.7.11** The joint shall be protected by the copper sleeve and protective glass fibre box casing, filled with waterproof compound, or a combination of corrosion proofing tapes having waterproofing/electrical properties to satisfy 5 kV d.c. over sheath integrity test.

# 7.7.8 SPECIFIC REQUIREMENTS FOR ITEM 4 OF SCHEDULE A: 132 kV XLPE SINGLE CORE TO OIL SINGLE CORE TRANSITION JOINT

- **7.7.8.1** The transition joint shall be designed to joint single-core low pressure SCFF cables to single core XLPE cables as indicated Annexure 4.
- **7.7.8.2** The joint shall comply in all aspects with the requirements of IEC 60141-1 and IEC 60840.
- 7.7.8.3 The transition joint shall be designed to provide complete separation between XLPE cable side of the joint and the fluid-filled cable side of the joint. The method of separation shall be rigid enough to prevent fluid leakage to the XLPE cable side.
- 7.7.8.4 The joint shall be designed to operate at a sustained internal pressure ranging from 20 kPa to 525 kPa, with transient pressure of up to 800 kPa
- **7.7.8.5** The connector supplied with joint shall be of compression, torque-shear, or welded type. The connector shall be capable of jointing conductors' sizes and type as indicated in Schedule B.
- **7.7.8.6** The fluid filled cable side of the joint shall be designed with a facility for applying partial restriction of the oil flow.

- **7.7.8.7** The fluid filled side of the joint shall be equipped with a valve at the bottom (lowest point) for oil evacuation and a valve at the top (highest point) for air evacuation.
- **7.7.8.8** The transition joint shall be designed to provide capability of withstanding the unbalanced thermo-mechanical loads arising from the differences in physical size between fluid filled cable side.
- **7.7.8.9** The fluid filled side shall be supplied with sets of paper rolls and crepe paper tapes. Preference shall be given to pre-chamfered paper rolls. Where pre-chamfered paper rolls are supplied, each roll shall be marked correctly and be stored in a sealed oil tin.
- **7.7.8.10** The metallic sheath shall be connected by means of copper sleeve. The metallic sheath shall be designed with an insulator flange at the centre of the joint to allow for each side of the joint to be earthed separately.
- 7.7.8.11 The joint shall be protected by the copper sleeve and protective glass fibre box casing, filled with waterproof compound, or a combination of corrosion proofing tapes having waterproofing/electrical properties to satisfy 5 kV d.c. over sheath integrity test.

## 7.7.9 SPECIFIC REQUIREMENTS FOR ITEM 5 OF SCHEDULE A: 132 kV THREE CORE OIL TO SINGLE CORE TRIFURCATING (SPLITTER BOX) JOINT

- **7.7.9.1** The trifurcating joint (Splitter box) shall be designed to split three-core low pressure SCFF into three single cores low pressure SCFF cables.
- **7.7.9.2** The joint shall comply in all aspects with the requirements of IEC 60141-1.
- **7.7.9.3** The joint shall be designed to operate at a sustained internal pressure ranging from 20 kPa to 525 kPa, with transient pressure of up to 800 kPa.
- **7.7.9.4** The transition joint shall be deigned to provide capability of withstanding the unbalanced thermo-mechanical loads arising from the differences in physical size between the three-core fluid filled cable side and single core fluid filled cable side.
- 7.7.9.5 The trifurcating (splitter box) shall be designed to trifurcate and seal the individual cores of a three-core cable and shall be provided with three 12 m lengths of a single-core outer protection sheaths for the three individual cores trifurcated from three-core cable.
- **7.7.9.6** The single-core outer protection sheaths shall comprise of polyethylene over-sheath bonded aluminium sheath.
- **7.7.9.7** The trifurcating joint shall be designed with a facility for applying partial restriction of the oil flow.
- **7.7.9.8** The trifurcating joint shall be equipped with a valve at the bottom for oil evacuation and a valve at the top for air evacuation.
- **7.7.9.9** The trifurcating joint shall be supplied with sets of paper rolls and crepe paper tapes. Preference shall be given to pre-chamfered paper rolls. Where pre-chamfered paper rolls are supplied, each roll shall be marked correctly and be stored in sealed oil tin.
- **7.7.9.10** The joint shall be connected by means of a copper sleeve; the metallic sheath shall be designed with an insulator flange at the centre of the joint to allow for each side of the joint to be earthed separately.
- 7.7.9.11 The joint shall be protected by a copper sleeve and protective fibre glass box casing, filled with waterproof compound, or a combination of corrosion proofing tapes having waterproofing /electrical properties to satisfy 5 kV d.c. over sheath integrity test.

# 7.7.10 SPECIFIC REQUIREMENTS FOR ITEM 6 OF SCHEDULE A: 132 kV THREE CORE OIL TO 132 kV XLPE TRIFURCATING TRANSITION JOINT

- **7.7.10.1** The trifurcating joint shall be designed to joint three-core low pressure SCFF cables to directly three single-core XLPE cables as indicated in Annexure 6.
- 7.7.10.2 The joint shall comply in all aspects with the requirements of IEC 60141-1 and EC 60840.
- **7.7.10.3** The trifurcating transition joint shall be designed to operate at a sustained internal pressure ranging from 20kPa to 525 kPa, with transient pressure of up to 800 kPa.
- **7.7.10.4** The trifurcating joint shall be designed to provide complete separation between the XLPE cable and side of the joint and the fluid filled cable side of the joint. The method of separation shall be rigid enough to prevent leakage to the XLPE cable side of the joint.
- 7.7.10.5 The trifurcating transition shall be designed to provide capability of withstanding the unbalanced thermos-mechanical loads arising from differences in physical size between fluid-filled cable side of the joint and the XLPE cable side of the joint.
- 7.7.10.6 The connector supplied with joint shall be of compression, torque-shear or welded type. The connector shall be capable of jointing conductors' sizes and type as indicated in Annexure A6. The connector shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- 7.7.10.7 The trifurcating joint shall be designed with a facility for applying partial restriction of the oil flow.
- **7.7.10.8** The fluid-filled cable side of the joint shall be equipped with a valve at the bottom(lowest point) for oil evacuation and a valve at the top(highest point) for air evacuation.
- **7.7.10.9** The trifurcating joint shall be supplied with sets of paper rolls and crepe paper tapes. Preference shall be given to pre-chamfered paper rolls. Where pre-chamfered paper rolls are supplied, each roll shall be marked correctly and be stored in sealed oil tin.
- **7.7.10.10** The metallic sheath shall be connected by means of copper sleeve. The metallic sheath shall be designed with an insulator flange at the centre of the joint to allow for each side of the joint to be earthed separately.
- 7.7.10.11 The joint shall be protected by a copper sleeve and protective fibre glass box casing, filled with waterproof compound, or a combination of corrosion proofing tapes having waterproofing /electrical properties to satisfy 5 kV d.c. over sheath integrity test.

# 7.7.11 SPECIFIC REQUIREMENTS FOR ITEM 7 OF SCHEDULE A: 132 kV XLPE GIS SWITCH SWITCHGEAR PLUG-IN TERMINATION

- **7.7.11.1** The termination shall be of plug-in dry type suitable for terminating all the cables specified in Schedule B into SF<sub>6</sub> gas insulated switch gear(GIS) equipment.
- 7.7.11.2 The termination shall comply in all respects with the requirements of IEC 62271-209
- **7.7.11.3** The termination shall be designed to be plugged into  $SF_6$  switchgear cable chambers designed as per IEC 62271
- **7.7.11.4** The termination shall be supplied with an insulator (bushing) designed with dimensions as per IEC 62271 209.

- **7.7.11.5** The termination kit shall be supplied with an additional extension module to accommodate old  $SF_6$  switchgear cable chambers designed as per old IEC 60859.
- **7.7.11.6** The design of the termination shall be such that no mechanical forces are transferred to the GIS by the cable.
- 7.7.11.7 The insulator shall have a bind-ended construction to eliminate possibility of  $SF_6$  gas leaking into the cable termination via the conductor connection. The cable glands sealing ends shall be insulated from the  $SF_6$  switchgear.
- **7.7.11.8** The connector type shall be specified in Annexure 6 and shall be designed such that it allows connection of copper conductors to aluminium conductors.
- **7.7.11.9** The method used to terminate and effectively earth the metallic sheath be specified in Annexure 6.
- 7.7.11.10 The GIS and transformer termination shall have an earth connection of M12 fixing holes.

# 7.7.12 SPECIFIC REQUIREMENTS FOR ITEM 8 OF SCHEDULE A: 132 kV XLPE TRANSFORMER PLUG-IN TERMINATION

- **7.7.12.1** The termination shall be of plug-in dry type suitable for terminating all cables specified in **schedule B** into transformer cable box.
- 7.7.12.2 The termination shall comply in respects with the requirements of IEC 62271-209.
- **7.7.12.3** The termination shall be designed to be plugged into both dry-type transformer cable boxes and the old wet type of transformer cable boxes.
- **7.7.12.4** The termination shall be supplied with the insulator(bushing) designed with dimensions as per **IEC 62271-209**.
- **7.7.12.5** Each termination kit shall be supplied with additional extension module to accommodate old wet type transformer cables.
- **7.7.12.6** The termination shall be supplied with a corona shield at the top of the termination which provides the necessary shielding of the terminal.
- **7.7.12.7** The design of the termination shall be such that no mechanical forces are transferred to transformer cable box by the cable.
- 7.7.12.8 The insulator shall have a blind-ended construction to eliminate the possibility of oil leaking into the cable termination through a conductor connection. The cable glands of the sealing ends shall be insulated from the transformer.
- **7.7.12.9** The connector shall be specified in Annexure 8-14 and shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- 7.7.12.10 The method used to terminate and effectively earth the metallic sheath shall be specified in Annexure 7.

### 7.7.13 SPECIFIC REQUIREMENTS FOR ITEM 9 OF SCHEDULE A: 132 kV XLPE OUTDOOR TERMINATION

- **7.7.13.1** The termination shall be self-supporting, composite, plug-in dry-type suitable for terminating all cables specified in Schedule B.
- 7.7.13.2 The termination shall comply in all aspects with the requirements of IEC 60815-3, IEC 60840, and IEC 61462.

- **7.7.13.3** The termination shall have a silicone rubber sheds with a unified specific creepage distance of 31 mm/kV as per IEC 60815.
- 7.7.13.4 The termination base plate and cables metallic sheath shall be electrically insulated from the supporting structure by means of standoff insulators designed to withstand both mechanical and electrical stressed in services.
- **7.7.13.5** The top bolt with a diameter of 38 mm, shall be included in the termination kit. The top bolt shall be made of tinned copper vertical stem.
- **7.7.13.6** All metal work shall be made of corrosion resistant.
- 7.7.13.7 The method used to terminate and effectively earth the metallic sheath shall be specified in Annexure 8.
- **7.7.13.8** Additional stress cone(s) shall be supplied in each termination kit if no stress cone is available to cover all cable sizes detailed in Schedule B.
- **7.7.13.9** All metallic parts shall be selected to prevent galvanic corrosion over the life of the outdoor termination.

# 7.7.14 SPECIFIC REQUIREMENTS FOR ITEM 10 OF SCHEDULE A: 33 kV OIL FILLED SINGLE CORE CABLE TO 33 kV SINGLE-CORE XLPE TRANSITION JOINT

- **7.7.14.1** The transition joint shall be designed to joint single-core low pressure SCFF cables to single core XLPE cables.
- 7.7.14.2 The joint shall comply in all aspects with the requirements of IEC 60141-1 and IEC 60840.
- 7.7.14.3 The transition joint shall be designed to provide complete separation between XLPE cable side of the joint and the fluid-filled cable side of the joint. The method of separation shall be rigid enough to prevent fluid leakage to the XLPE cable side.
- **7.7.14.4** The joint shall be designed to operate at a sustained internal pressure ranging from 20 kPa to 525 kPa, with transient pressure of up to 800 kPa.
- **7.7.14.5** The connector supplied with joint shall be of compression, torque-shear or welded type. The connector shall be capable of jointing conductors' sizes and type as indicated in Schedule B.
- **7.7.14.6** The fluid filled cable side of the joint shall be designed with a facility for applying partial restriction of the oil flow.
- **7.7.14.7** The fluid filled side of the joint shall be equipped with a valve at the bottom (lowest point) for oil evacuation and a valve at the top (highest point) for air evacuation.
- **7.7.14.8** The transition joint shall be designed to provide capability of withstanding the unbalanced thermomechanical loads arising from the differences in physical size between fluid filled cable side.
- 7.7.14.9 The fluid filled side shall be supplied with sets of paper rolls and crepe paper tapes. Preference shall be given to pre-chamfered paper rolls. Where pre-chamfered paper rolls are supplied, each roll shall be marked correctly and be stored in a sealed oil tin.
- **7.7.14.10** The metallic sheath shall be connected by means of copper sleeve. The metallic sheath shall be designed with an insulator flange at the centre of the joint to allow for each side of the joint to be earthed separately.
- 7.7.14.11 The joint shall be protected by the copper sleeve and protective glass fibre box casing, filled with waterproof compound, or a combination of corrosion proofing tapes having waterproofing/electrical properties to satisfy 5 kV d.c. over sheath integrity test.

# 7.7.15 SPECIFIC REQUIREMENTS FOR ITEM 11 OF SCHEDULE A: 33 kV XLPE TRANSFORMER PLUG-IN TERMINATION

- **7.7.15.1** The termination shall be of plug-in dry type suitable for terminating all cables specified in Schedule B into transformer cable box.
- **7.7.15.2** The termination shall comply in respects with the requirements of IEC 62271-209.
- **7.7.15.3** The termination shall be designed to be plugged into both dry-type transformer cable boxes and old wet type of transformer cable boxes.
- **7.7.15.4** The termination shall be supplied with the insulator(bushing) designed with dimensions as per IEC 62271-209.
- **7.7.15.5** Each termination kit shall be supplied with additional extension module to accommodate old wet type transformer cables.
- **7.7.15.6** The termination shall be supplied with a corona shield at the top of the termination which provides the necessary shielding of the terminal.
- **7.7.15.7** The design of the termination shall be such that no mechanical forces are transferred to transformer cable box by the cable.
- 7.7.14.8 The insulator shall have a blind-ended construction to eliminate the possibility of oil leaking into the cable termination through a conductor connection. The cable glands of the sealing ends shall eb insulated from the transformer.
- **7.7.15.9** The connector shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- 7.7.15.10 The method used to terminate and effectively earth the metallic sheath shall be specified in Annexure 11.
- **7.7.15.11** Additional stress cone(s) shall eb supplied in each termination kit if no stress cone is available to cover all cable sizes detailed in Schedule B.

#### 7.7.16 SPECIFIC REQUIREMENTS FOR ITEM 12 OF SCHEDULE A: 33 kV XLPE OUTDOOR TERMINATION

- **7.7.16.1** The termination shall be self-supporting, composite, plug-in dry-type suitable for terminating all cable sizes specified in Schedule B.
- 7.7.16.2 The termination shall comply in all aspects with the requirements of IEC60815-3, IEC 60840 and IEC 61462.
- 7.7.16.3 The termination shall have a silicone rubber sheds with a unified specific creepage distance of 31 mm/kV as per IEC 60815.
- **7.7.16.4** The termination base plate and cables metallic sheath shall be electrically insulated from the supporting structure by means of standoff insulators designed to withstand both mechanical and electrical stressed in services.
- **7.7.16.5** All metal work shall be made of corrosion resistant.
- **7.7.16.6** The method used to terminate and effectively earth the metallic sheath shall be specified in Annexure 12.
- **7.7.16.7** Additional stress cone(s) shall be supplied in each termination kit if no stress cone is available to cover all cable sizes detailed in Schedule B.
- **7.7.16.8** All metallic parts shall be selected to prevent galvanic corrosion over the life of the outdoor termination.

# 7.7.17 SPECIFIC REQUIREMENTS FOR ITEM 13 OF SCHEDULE A: 11 kV XLPE TRANSFORMER PLUG-IN TERMINATION

- **7.7.17.1** The termination shall be of plug-in dry type suitable for terminating all cables specified in schedule B into transformer cable box.
- **7.7.17.2** The termination shall comply in respects with the requirements of IEC 62271-209.
- **7.7.17.3** The termination shall be designed to be plugged into both dry-type transformer cable boxes and old wet type of transformer cable boxes.
- **7.7.17.4** The termination shall be supplied with the insulator(bushing) designed with dimensions as per IEC 62271-209.
- **7.7.17.5** Each termination kit shall be supplied with additional extension module to accommodate old wet type transformer cables.
- **7.7.17.6** The termination shall be supplied with a corona shield at the top of the termination which provides necessary shielding of the terminal.
- **7.7.17.7** The design of the termination shall be such that no mechanical forces are transferred to transformer cable box by the cable.
- 7.7.17.8 The insulator shall have a blind-ended construction to eliminate the possibility of oil leaking into the cable termination through a conductor connection. The cable glands of the sealing ends shall eb insulated from the transformer.
- **7.7.17.9** The connector shall be as specified in Annexure 13 and shall be designed such that it allows for connection of copper conductors to aluminium conductors.
- 7.7.17.10 The method used to terminate and effectively earth the metallic sheath is specified in Annexure 13.

# 7.7.18 SPECIFIC REQUIREMENTS FOR ITEM 14 OF SCHEDULE A: 33 kV PILC TRANSFORMER TERMINATION

- 7.7.18.1 The termination shall be suitable for both belted and screened PILC cables and it shall cover cable ranges between  $240 \text{ mm}^2$  to  $630 \text{ mm}^2$ .
- **7.7.18.2** The termination shall comply in respect with SANS 1332 and IEC 60141-1 standards.
- **7.7.18.3** The termination shall be supplied with the insulator(bushing) designed with dimensions as per IEC 62271-209.
- **7.7.18.4** The termination shall be compatible with old wet type transformer boxes.
- **7.7.18.5** The termination shall be suitable for voltages up to 33 kV.
- **7.7.18.6** The design of the termination shall be such that no mechanical forces are transferred to transformer cable box by the cable.
- **7.7.18.7** The insulator shall be designed to prevent possibility of moisture or water from going into cable termination through conductor connection. The cable glands of the sealing ends shall be insulated from the transformer.
- **7.7.18.8** The termination shall come in one sealed box and labelled.
- **7.7.18.9** The termination shall be inclusive of the termination instructions.

# 7.7.19 SPECIFIC REQUIREMENTS FOR ITEM 15 OF SCHEDULE A: 33 kV PILC SWITCHGEAR TERMINATION

- 7.7.19.1 The termination shall be suitable for both belted and screened PILC cables
- **7.7.19.2** Termination shall cover the cable size ranges between 240 mm<sup>2</sup> and 300 mm<sup>2</sup>.
- **7.7.19.3** Termination shall be suitable for voltage up to 33 kV.
- **7.7.19.4** Termination shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- **7.7.19.5** Termination shall include tress relief rain sheds.
- **7.7.19.6** Three-core cable terminations shall be designed to accommodate crossing of cable cores within the screened section of the trifurcated cores.
- **7.7.19.7** Cable terminations shall have semi-conductive tubes that cover the metallic-paper core screen from the break-out boot to the end of the core screen.
- 7.7.19.8 Terminations shall be supplied with range-taking mechanical torque-shear lugs in accordance with NRS 075 and shall be suitable for the standard ranges specified in Schedule B. The mechanical torque shear lug fixing hole shall be M16.
- 7.7.19.9 Termination shall be water resistant.
- 7.7.19.10 Termination shall come in one sealed box and labelled.
- **7.7.19.11** Termination shall be inclusive of the termination instructions

#### 7.7.20 SPECIFIC REQUIREMENTS FOR ITEM 16 OF SCHEDULE A: 33 kV PILC OUTDOOR TERMINATION

- 7.7.20.1 The termination shall be suitable for both belted and screened PILC cables
- **7.7.20.2** Termination shall cover the cable size ranges between 240 mm<sup>2</sup> and 300 mm<sup>2</sup>.
- 7.7.20.3 Termination shall be suitable for voltage up to 33 kV.
- **7.7.20.4** Termination shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- 7.7.20.5 Termination shall include tress relief rain sheds.
- **7.7.20.6** Three-core cable terminations shall be designed to accommodate crossing of cable cores within the screened section of the trifurcated cores.
- **7.7.20.7** Cable terminations shall have semi-conductive tubes that cover the metallic-paper core screen from the break-out boot to the end of the core screen.
- 7.7.20.8 Terminations shall be supplied with range-taking mechanical torque-shear lugs in accordance with NRS 075 and shall be suitable for the standard ranges specified in Schedule B. The mechanical torque shear lug fixing hole shall be M16.
- **7.7.20.9** Termination shall be water resistant.
- 7.7.20.10 Termination shall come in one sealed box and labelled.
- **7.7.20.11** Termination shall be inclusive of the termination instructions

# 7.7.21 SPECIFIC REQUIREMENTS FOR ITEM 17 OF SCHEDULE A: 11 kV PILC TRANSFORMER TERMINATION

7.7.21.1 The termination shall be suitable for both belted and screened PILC cables and it shall cover cable ranges between  $240 \text{ mm}^2$  to  $630 \text{ mm}^2$ .

- **7.7.21.2** The termination shall comply in respect with SANS 1332 and IEC 60141-1 standards.
- **7.7.21.3** The termination shall be supplied with the insulator(bushing) designed with dimensions as per IEC 62271-209.
- **7.7.21.4** The termination shall be compatible with old wet type transformer boxes.
- **7.7.21.5** The termination shall be suitable for voltages up to 11 kV.
- **7.7.21.6** The design of the termination shall be such that no mechanical forces are transferred to transformer cable box by the cable.
- **7.7.21.7** The insulator shall be designed to prevent possibility of moisture or water from going into cable termination through conductor connection. The cable glands of the sealing ends shall be insulated from the transformer.
- **7.7.21.8** The termination shall come in one sealed box and labelled.

## 7.7.22 SPECIFIC REQUIREMENTS FOR ITEM 18 OF SCHEDULE A: 33 kV THREE-CORE PILC TO 33 kV XLPE SINGLE CORE TRANSITION JOINT

- **7.7.22.1** The transition shall be designed to join three-core paper insulated lead covered cables to single core XLPE cables as indicated Annexure 18.
- **7.7.22.2** Cable joint shall cover the cable size ranges between 240 mm<sup>2</sup> and 400 mm<sup>2</sup>.
- **7.7.22.3** Cable joint shall be suitable for voltage up to 33 kV.
- 7.7.22.4 The cable joint shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- 7.7.22.5 The cable joint shall be designed to use heat shrink tubes to connect XLPE cables to PILC cables.
- **7.7.22.6** The joint shall be facilitated with the inclusion of mechanical shear bolt ferrule connectors suitable for cable ranges indicated in clause **7.7.22.2**.
- **7.7.22.7** The metallic sheath shall be connected by means of copper tape.
- **7.7.22.8** The joint shall come in one sealed box and labelled.
- **7.7.22.9** The joint shall be inclusive of the jointing instructions.

## 7.7.23 SPECIFIC REQUIREMENTS FOR ITEM 19 OF SCHEDULE A: 11 kV SINGLE-CORE 630 mm<sup>2</sup> PILC STRAIGHT JOINT

- **7.7.23.1** The cable joint shall be suitable for both belted and screened PILC cables.
- **7.7.23.2** The cable joint shall cover the cable size of  $630 \text{ mm}^2$ .
- **7.7.23.3** The cable joint shall be suitable for voltage up to 11 kV.
- **7.7.23.4** Cable Joint shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- 7.7.23.5 Cable Joint shall be water resistant.
- **7.7.23.6** Joint shall come in one sealed box and labelled.
- 7.7.23.7 Joint shall have a torque shear connector suitable to connect copper and aluminium.
- **7.7.23.8** Joint shall be inclusive of the jointing instruction.

## 7.7.24 SPECIFIC REQUIREMENTS FOR ITEM 20 OF SCHEDULE A: 11 kV SINGLE-CORE 630 mm<sup>2</sup> PILC COPPER CABLE

- 7.7.24.1 Cable shall be screened.
- **7.7.24.2** Cable shall be 630 mm<sup>2</sup> in core size.
- 7.7.24.3 Cable shall be suitable for voltage up to 11 kV.
- **7.7.24.4** Cable shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- **7.7.24.5** Cable shall be water resistant.
- **7.7.24.6** Cable shall be supplied with coiling drum.
- **7.7.24.7** Cable shall be inclusive of the technical specification and tests certificates.

### 7.7.25 SPECIFIC REQUIREMENTS FOR ITEM 21 OF SCHEDULE A: 33 kV SINGLE-CORE 300 mm<sup>2</sup> PILC COPPER CABLE

- 7.7.25.1 Cable shall be screened.
- **7.7.25.2** Cable shall be 300 mm<sup>2</sup> in core size.
- **7.7.25.3** Cable shall be suitable for voltage up to 33 kV.
- **7.7.25.4** Cable shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- **7.7.25.5** Cable shall be water resistant.
- **7.7.25.6** Cable shall be supplied with coiling drum.
- **7.7.25.7** Cable shall be inclusive of the technical specification and tests certificates.

### 7.7.26 SPECIFIC REQUIREMENTS FOR ITEM 22 OF SCHEDULE A: 11 kV THREE-CORE 300 mm<sup>2</sup> PILC ALLUMINIUM CABLE

- 7.7.26.1 Cable shall be either belted or screened.
- **7.7.26.2** Cable shall be in 300 mm<sup>2</sup> core size.
- **7.7.26.3** Cable shall be suitable for voltage up to 11 kV.
- **7.7.26.4** Cable shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- **7.7.26.5** Cable shall be water resistant.
- **7.7.26.6** Cable shall be supplied with coiling drum.
- 7.7.26.7 Cable shall be inclusive of the technical specification and tests certificates.

## 7.7.27 SPECIFIC REQUIREMENTS FOR ITEM 23 OF SCHEDULE A:11 kV THREE-CORE 300 mm<sup>2</sup> PILC COPPER CABLE

- 7.7.27.1 Cable shall be either belted or screened.
- **7.7.27.2** Cable shall be  $300 \text{ mm}^2$  in core size.
- **7.7.27.3** Cable shall be suitable for voltage up to 11 kV.
- **7.7.27.4** Cable shall comply with SANS 1332 2013 and IEC 60141-1 standards.
- 7.7.27.5 Cable shall be water resistant.
- 7.7.27.6 Cable shall be supplied with coiling drum.
- 7.7.27.7 Cable shall be inclusive of the technical specification and test certificates.

## 7.7.28 SPECIFIC REQUIREMENTS FOR ITEM 24a OF SCHEDULE A: LINK DISCONNECTING BOXES FOR SINGLE-LINE BONDING WITH SHEATH VOLTAGE LIMITER AND EARTH

Link disconnecting boxes and SVLs shall be in accordance with clause 4.4.5 of NRS 077. Furthermore, the following shall apply:

#### Enclosure(Link box)

- **7.7.28.1** The link disconnecting box shall be of structure mounted type.
- 7.7.28.2 It shall be designed to accommodate a single concentric  $300 \,\mathrm{mm}^2$  bonding cable and one earthing cable with sealed cable glands.
- **7.7.28.3** The link box shall be manufactured from 304 grading stainless steel with a degree of protection IP68 against water ingress and dirt in accordance with SANS 60529.
- 7.7.28.4 The link disconnecting box shall accommodate both indoor and outdoor installation.
- 7.7.28.5 It shall be type tested in accordance with IEC 60840 and shall be designed to withstand a standard lightning impulse voltage of 650 kV.
- **7.7.28.6** The enclosure shall be arc resistant and explosion proof. In an event of explosion, the enclosure should not be ruptured, burst open and no debris could be ejected.
- 7.7.28.7 The link box frame shall be painted with non-toxic, inflammable, and non-contaminant water-soluble light grey paint (in accordance with SANS 1091) unless otherwise approved by eThekwini Municipality.
- 7.7.28.8 All exposed metal of link disconnecting boxes shall be protected against moisture and corrosion.
  <u>Sheath voltage limiter(SVL)</u>
- **7.7.28.8** Sheath voltage limiter shall be suitable for both indoor and outdoor installation.
- **7.7.28.9** Shall withstand overvoltage associated with short circuit events, transient voltages, switching and fault level events.
- **7.7.28.10** SVL's shall be suitable for very heavily polluted atmospheric conditions with unified specific creepage distance (USCD) in accordance with SANS 60815-1 of 53,7 kV/mm for "heavy" to "very heavy" pollution applications whereby the kV value is the phase to earth voltage U.
- **7.7.28.11** SVL's shall be designed and tested in accordance with IEC 60099-4: Metal-Oxide surge arrestors without gaps for AC systems.

### 7.7.29 SPECIFIC REQUIREMENTS FOR ITEM 24b OF SCHEDULE A: LINK DISCONNECTING BOXES FOR THREE-LINE WITH SHEATH VOLTAGE LIMITER AND EARTH

Link disconnecting boxes and SVLs shall be in accordance with clause 4.4.5 of NRS 077. Furthermore, the following shall apply:

#### Enclosure(Link box)

- 7.7.29.1 The link disconnecting box shall accommodate both underground (pit walls) or termination kiosk.
- **7.7.29.2** It shall be designed to accommodate three  $300 \mathrm{mm}^2$  concentric bonding cable and two earthing cables with sealed cable glands.
- **7.7.29.3** It shall be type tested in accordance with IEC 60840 and shall be designed to withstand a standard lightning impulse voltage of 650 kV.
- **7.7.29.4** The enclosure shall be arc resistant and explosion proof. In an event of explosion, the enclosure should not be ruptured, burst open and no debris could be ejected.

- **7.7.29.5** The link box frame shall be painted with non-toxic, inflammable, and non-contaminant water-soluble light grey paint (in accordance with SANS 1091) unless otherwise approved by eThekwini Municipality.
- 7.7.29.6 All exposed metal of link disconnecting boxes shall be protected against moisture and corrosion.
  <u>Sheath voltage limiter</u>
- 7.7.29.7 Sheath voltage limiter shall be suitable for both indoor and outdoor installation.
- **7.7.29.8** Shall withstand overvoltage associated with short circuit events, transient voltages, switching and fault level events.
- **7.7.29.9** SVL's shall be suitable for very heavily polluted atmospheric conditions with unified specific creepage distance (USCD) in accordance with SANS 60815-1 of 53,7 kV/mm for "heavy" to "very heavy" pollution applications whereby the kV value is the phase to earth voltage U.
- **7.7.29.10** SVL's shall be designed and tested in accordance with IEC 60099-4: Metal-Oxide surge arrestors without gaps for AC systems.

### 7.7.30 SPECIFIC REQUIREMENTS FOR ITEM 24c OF SCHEDULE A: LINK DISCONNECTING BOXES FOR CROSS BONDED(SIX LINE) WITH SHEATH VOLTAGE LIMITER AND EARTH

Link disconnecting boxes and SVLs shall be in accordance with clause 4.4.5 of NRS 077. Furthermore, the following shall apply:

#### Enclosure(Link box)

- 7.7.30.1 The link disconnecting box shall accommodate both underground (pit walls) or termination kiosk.
- **7.7.30.2** It shall be designed to accommodate three  $300 \text{mm}^2$  concentric bonding cable, two earthing cables with sealed cable glands and be suitable for cross bonding arrangements.
- **7.7.30.3** It shall be type tested in accordance with IEC 60840 and shall be designed to withstand a standard lightning impulse voltage of 650 kV.
- **7.7.30.4** The enclosure shall be arc resistant and explosion proof. In an event of explosion, the enclosure should not be ruptured, burst open and no debris could be ejected.
- **7.7.30.5** The link box frame shall be painted with non-toxic, inflammable, and non-contaminant water-soluble light grey paint (in accordance with SANS 1091) unless otherwise approved by eThekwini Municipality.
- 7.7.30.6 All exposed metal of link disconnecting boxes shall be protected against moisture and corrosion.
  Sheath voltage limiter
- **7.7.30.7** Sheath voltage limiter shall be suitable for both indoor and outdoor installation.
- **7.7.30.8** Shall withstand overvoltage associated with short circuit events, transient voltages, switching and fault level events.
- **7.7.30.9** SVL's shall be suitable for very heavily polluted atmospheric conditions with unified specific creepage distance (USCD) in accordance with SANS 60815-1 of 53,7 kV/mm for "heavy" to "very heavy" pollution applications whereby the kV value is the phase to earth voltage U.
- **7.7.30.10** SVL's shall be designed and tested in accordance with IEC 60099-4: Metal-Oxide surge arrestors without gaps for AC systems
- **N.B**1. Details of the link disconnecting boxes, bonding leads and SVLs offered shall be supplied with the tender. (Drawings approved by a Professional Engineer/ Professional Technologist must be included).
  - 2. Link box provided shall have electrical danger sign fitted on the front of the access door.

### 7.7.31 SPECIFIC REQUIREMENTS FOR ITEM 25 OF SHEDULE A: TRAINING

Training shall meet requirement of NRS 053. Bidders shall offer training of cable jointing and cable terminating using eThekwini Electricity's cables and approved cable jointing and termination kits. The training shall be for eThekwini Electricity's electricians/artisans and contractors.

- (a) The training course offered shall be in accordance with SANS 10198, SANS 1332-13 and NRS 077.
- (b) The training course offered shall consist of theoretical and practical training for cable joint kits and cable termination kits.
- (c) The training course shall cover cables listed in section **7.7.3**.
- (d) A minimum of 4 candidates shall be trained per year, 12 candidates over the period of 36 Months.
- (e) The trainees shall be individually assessed and issued with the accreditation certificate of competence.

#### 7.7.32 SCHEDULE A: LIST OF ITEMS IN THIS SPECIFICATION

No.	Item description	Stock codes	Delivery Rate
1(a)	132 kV XLPE 3-piece Screen Break Straight Joint.	2493	As and when required
1(b)	132 kV Stress cones.	TBC	As and when required
1(c)	132 kV Connectors.	TBC	As and when required
2	132 kV XLPE single piece Screen Break Straight joint.	TBC	As and when required
3	132 kV Three-core-oil Straight joint	107102	As and when required
4	132 kV XLPE Single-Core to oil single core transition joint.	107128	As and when required
5	132 kV Three-Core Oil to Single-Core Oil Splitter Box.	107110	As and when required
6	132 kV Three-Core Oil to XLPE Trifurcating Transition Joint.	2434	As and when required
7	132 kV XLPE GIS Switchgear Dry-Type Plug-in Termination.	2510	As and when required
8	132 kV XLPE Transformer Dry-Type Plug-in Termination.	2808	As and when required
9	132 kV XLPE Outdoor Termination	2506	As and when required
10	33 kV XLPE plug-in dry type transformer termination.	2478	As and when required

11	33 kV XLPE outdoor termination.	2568	As and when required
12	33 kV oil-filled three-core to 33 kV single-core XLPE transition joint.	2581	As and when required
13	11 kV plug-in dry type transformer termination.	568	As and when required
14	33 kV PILC three-core to 33 kV single-core XLPE transition joint.	2570	As and when required
16	33 kV PILC single-core indoor termination.	2581	As and when required
17	33 kV PILC single-core outdoor termination.	2574	As and when required
18	11 kV PILC single-core transformer termination.	TBC	As and when required
19	11 kV single-core 630 mm <sup>2</sup> PILC straight joint.	2574	As and when required
20	11 kV single-core 630 mm <sup>2</sup> PILC copper cable.	2577	As and when required
21	33 kV single-core 300 mm <sup>2</sup> PILC Aluminium cable.	2594	As and when required
22	11 kV three-core 300 mm <sup>2</sup> PILC aluminium cable.	2565	As and when required
23	11 kV three-core 300 mm <sup>2</sup> PILC copper cable.	2603	As and when required
24a	Link disconnecting boxes for single-line bonding with sheath voltage limiter and earth.	TBC	As and when required
24b	Link disconnecting boxes for three-line with sheath voltage limiter and earth.	ТВС	As and when required
24c	Link disconnecting boxes for cross bonded(six line) with sheath voltage limiter and earth.	ТВС	As and when required
25	Training		As and when required

### 7.7.33 SCHEDULE B : CABLE RANGE PARAMETERS

Cable joints and terminations shall be able to accommodate on the cable sizes specified in table below:

No.	Type of cable	Cable size(range)
1	132 kV XLPE single-core aluminium screened fully water- blocked with seamless corrugated aluminium sheath cable	240 mm <sup>2</sup> to 2500 mm <sup>2</sup>
2.	132 kV XLPE single-core aluminium screened fully water- blocked with seamless corrugated aluminium sheath cable	240 mm <sup>2</sup> to 2500 mm <sup>2</sup>
3.	33 kV single-core aluminium screened fully water-blocked with seamless corrugated aluminium sheath cable	240 mm <sup>2</sup> to 1200 mm <sup>2</sup>
4.	33 kV single-core copper screened fully water-blocked with seamless corrugated aluminium sheath cable	240 mm <sup>2</sup> to 1200 mm <sup>2</sup>
5.	132 kV three-core oil filled cable	240 mm <sup>2</sup> to 1200 mm <sup>2</sup>

6.	132 kV single-core oil filled cable	240 mm <sup>2</sup> to 1200 mm <sup>2</sup>
7.	33 kV three-core PILC alluminium cable	300 mm <sup>2</sup> to 630 mm <sup>2</sup>
8.	33 kV three-core PILC copper cable	300 mm <sup>2</sup> to 630 mm <sup>2</sup>
9.	11 kV three-core PILC aluminium cable	300 mm <sup>2</sup> to 630 mm <sup>2</sup>
10	11 kV three-core PILC copper cable	300 mm <sup>2</sup> to 630 mm <sup>2</sup>
11	11 kV single core PILC copper cable	300 mm <sup>2</sup> to 630 mm <sup>2</sup>

### 7.7.34 <u>TEST REQUIREMENTS</u>

The tests shall be in accordance with the requirements of clause 5 of NRS 077. In addition, the following shall be applicable:

- (a) All required type test report shall be submitted to eThekwini Electricity on the time of tender.
- (b) The supplier shall at the time of tender submit the manufacturer, manufacturing location and component description of each type tested component.

### 7.7.35 MARKING, LABELLING AND PACKAGING OF CABLE ACCESSORIES

Marking, labelling, and packaging of accessories shall be in accordance with clause 6.4 of NRS 077. In addition, the following shall apply.

- (a) Each item shall have all accessories in ONE box.
- (b) The box shall be of adequate size to fit all bill of materials (BOM) of the cable accessories without squashing them tightly.

### 7.7.36 <u>DELIVERY AND DOCUMENTATION</u>

Three set of electronic and printed hard copies of the accessory's drawings shall be submitted to the employer for review and approval.

### SECTION 8: BILL OF QUANTITIES / SCHEDULE OF RATES / ACTIVITIES

Item	Description / Item Code	Unit of	Estimated	* Price Y	ear 1 (excl)	* Price `	rear 2 (excl)	* Price Y	ear 3 (excl)
		Measure	Quantity Required	R	С	R	С	R	С
1a	132 kV XLPE 3-piece Screen Break Straight Joint.	Each	60						
1b	132 kV Stress cones.	Each	20						
1c	132 kV Connectors.	Each	20						
2	132 kV XLPE single piece Screen Break Straight joint.	Each	30						
3	132 kV Three-core-oil Straight joint	Each	4						
4	132 kV XLPE Single-Core to oil single core transition joint.	Each	4						
5	132 kV Three-Core Oil to Single-Core Oil Splitter Box.	Each	2						
6	132 kV Three-Core Oil to XLPE Trifurcating Transition Joint.	Each	4						
7	132 kV XLPE GIS Switchgear Dry-Type Plug-in Termination.	Each	4						
8	132 kV XLPE Transformer Dry-Type Plug-in Termination.	Each	4						
9	132 kV XLPE Outdoor Termination	Each	10						

Item	Description / Item Code	Unit of	Estimated	* Price Year 1 (e	xcl)	* Price Year 2 (ex	cl)	* Price Year 3 (ex	(cl)
		Measure	Quantity Required	R	С	R	С	R	С
10	33 kV XLPE plug-in dry type transformer termination.	Each	4						
11	33 kV XLPE outdoor termination.	Each	2						
12	33 kV oil-filled three-core to 33 kV single-core XLPE transition joint.	Each	4						
13	11 kV plug-in dry type transformer termination.	Each	3						
14	33 kV PILC three-core to 33 kV single-core XLPE transition joint.	Each	8						
16	33 kV PILC single-core indoor termination.	Each	6						
17	33 kV PILC single-core outdoor termination.	Each	12						
18	11 kV PILC single-core transformer termination.	Each	4						
19	11 kV single-core 630 mm <sup>2</sup> PILC straight joint.	Each	8						
20	11 kV single-core 630 mm <sup>2</sup> PILC copper cable.	meters	1500						
21	$33\mathrm{kV}$ single-core $300~\mathrm{mm}^2~\mathrm{PILC}$ Aluminium cable.	meters	1500						

Item	Description / Item Code	Unit of	Estimated	* Price Year 1 (e	xcl)	* Price Year 2 (ex	cl)	* Price Year 3 (ex	(cl)
		Measure	Quantity Required	R	С	R	С	R	С
22	11 kV three-core 300 mm <sup>2</sup> PILC aluminium cable.	meters	1500						
23	11 kV three-core 300 mm <sup>2</sup> PILC copper cable.	meters	1500						
24a	Link disconnecting boxes for single-line bonding with sheath voltage limiter and earth.		10						
24b	Link disconnecting boxes for three-line with sheath voltage limiter and earth.	each	10						
24c	Link disconnecting boxes for cross bonded(six line) with sheath voltage limiter and earth.		10						
25	Training	Per person	12						
				Year 1		Year 2		Year 3	
			Sub-Totals :						
				Sub-Tota	al (exc	l) = Year1 + Year 2 + Y	ear 3: VAT:		

Total (incl) carried forward to the Tender Form:

### **SECTION 9: OFFICIAL TENDER FORM**

Part A: OFFER BY TENDERER - In response to Tender Number: E.9811 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) at the price stated below, or in the case of individual rates are indicated in Section 8: Bill Of Quantities / Schedule of Rates / Activities.

EXCLUSIVE	O PRICE E OF VAT	VAT AMOUNT		RED PRICE VE OF VAT
R		R	* R	
* AMOUNT IN WORDS	S (incl. VAT):			
	,			
		ood and remain open for accep ed in the Special Conditions of		e Conditions of Tend
eThekwini Vendor Portal	Registration Numbe	er: <b>PR</b>		
C.S.D Registration Num	ber:	MAAA		
S.A.R.S Pin Number:				
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Declaration of Intere	<del>-</del>	sory. Failure to declare th	e lollowing will lilva	andate your one
		hareholder or stakeholders currently	in the service of	
the state or have been in the				Yes No
	•	managers, principle shareholder or st e service of the state in the past twelv		Yes No
Name of entity's member	Position in Entity	Name of Relative (if applicable)	Name of State Institution	Nature of Relationshi
relationship (spouse, family, f	friend, associate) with per	 reholder or stakeholder of your entit rsons in the service of the state and/c lease furnish particulars below	•	Yes No
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### **SECTION 10: ANNEXURES**

### **ANNEXURE A: TECHNICAL REQUIREMENTS SCHEDULE**

# ANNEXURE 1A: Specific requirements for item 1(a): 132 kV XLPE 3-piece joint screen break straight joint

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

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_{\it O}/U_{\it n})$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable joint offered suitable for jointing cables listed in <b>schedule B</b>	Yes	Yes/No
11	Cable joint to meet the requirements of IEC 60840 and NRS 077	Yes	Yes/No

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 1A: Specific requirements for item 1(a): 132 kV XLPE 3-piece screen break straight joint(Concluded)

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

12	Installation instructions included in each joint kit?	Yes	Yes/No
13	Bill of materials included in each joint kit?	Yes	Yes/No
14	Drawing with all dimensions included?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
17	Connector(Ferrule) type?	Refer to Clause 7.7.3.5.	Yes
18	Outer protection?	Refer to Clause 7.7.3.6	Yes
19	Method of Earthing	Refer to Clause 7.7.3.7	
20	Installation time	Refer to Clause 7.7.1.1(u)	
21	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
22	Special jointer training?	Refer to Clause 7.7.31	Yes/No
23	Shelf life		

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 1B: Requirements for item 1(b) of Schedule A: Stress cones as per cable ranges in Schedule B

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

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	11kV-132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
9	Is the cable offered suitable for system and service conditions stated in <b>clause 7.5</b> of this specification?	Yes	Yes/No
10	Is the cable offered meet the requirements stated in <b>clause 7.7.4</b> ?	Yes	Yes/No
11	Cable meets the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
23	Shelf life		

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

### ANNEXURE 1C: Requirements for item 1(c) of Schedule A: Connectors and their accessories

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

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	11kV-132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
9	Is the cable offered suitable for system and service conditions stated in <b>clause 7.5</b> of this specification?	Yes	Yes/No
10	Is the cable offered meet the requirements stated in <b>clause 7.7.5</b> ?	Yes	Yes/No
11	Cable meets the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
23	Shelf life		

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 2: Specific requirements for item 2: 132 kV XLPE single piece joint screen break straight joint

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

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable joint offered suitable for jointing cables listed in <b>schedule B</b>	Yes	Yes/No
11	Cable joint to meet the requirements of IEC 60840 and NRS 077	Yes	Yes/No

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 2: <u>Specific requirements for item 2: 132 kV XLPE single piece screen break straight joint(Concluded)</u>

12	Installation instructions included in each joint kit?	Yes	Yes/No
13	Bill of materials included in each joint kit?	Yes	Yes/No
14	Drawing with all dimensions included?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
17	Connector(Ferrule) type?	Refer to Clause 7.7.6.5.	Yes
18	Outer protection?	Refer to Clause 7.7.6.6	Yes
19	Method of Earthing	Refer to Clause 7.7.6.7	
20	Installation time	Refer to Clause 7.7.1.1(u)	
21	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
22	Special jointer training?	Refer to Clause 7.7.31	Yes/No
23	Shelf life		

BIDDING COMPANY:				
NAME:	_SIGNED:			
CAPACITY OF SIGNATORY:	DATE:			

### ANNEXURE 3: Specific requirements for item 3: 132 kV Single Core oil straight joint

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in clause 7.7.7.3 of this specification?	Yes	Yes/No
10	Is the joint offered suitable for the system and service conditions offered in Clause 7.5?	Yes	Yes/No
11	Is the joint offered suitable for jointing all single core cable sizes listed in <b>Schedule</b> B?	Yes	Yes/No
11	Cable joint to meet the requirements of IEC 60141-Part 1?	Yes	Yes/No
12.	Installation instructions included in each joint kit?	Yes	Yes/No
13	Bill of materials included in each joint kit?	Yes	Yes/No

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	_DATE:	

### ANNEXURE 3: Specific requirements for item 3: 132 kV Single Core oil straight joint (Concluded)

14	Drawing with all dimensions included?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
17	Connector(Ferrule) type?	Refer to Clause 7.7.7.4	Yes/No
18	Method of Earthing	Refer to Clause 7.7.7.8	
19	Installation time	Refer to Clause 7.7.1.1(u)	Yes/No
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	
21	Special jointer training?	Refer to Clause 7.7.31	Yes/No
22	Shelf life		

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

## ANNEXURE 4:Specific requirements for item 4: 132 kV XLPE Single Core to Oil Single Core <u>Transition joint</u>

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_O/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in Clause 7.7.8.4 of this specification?	Yes	Yes/No
10	Is the joint offered suitable for the system and service conditions offered in Clause 7.5?	Yes	Yes/No
11	Is the joint offered suitable for jointing all three core cable sizes listed in <b>Schedule B</b> ?	Yes	Yes/No
11	Cable joint to meet the requirements of IEC 60141-Part 1 and IEC 60840.	Yes	Yes/No
12	Installation instructions included in each joint kit?	Yes	Yes/No

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

## ANNEXURE 4:Specific requirements for item 4: 132 kV XLPE Single Core XLPE to Oil Single Core <u>Transition joint (Concluded)</u>

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

13	Bill of materials included in each joint kit?	Yes	Yes/No
14	Drawing with all dimensions included?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
17	Connector(Ferrule) type?	Refer to Clause 7.7.8.6	Yes/No
18	Method of Earthing	Refer to Clause 7.7.8.10	
19	Installation time	Refer to Clause 7.7.1.1(u)	
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
21	Special jointer training?	Refer to Clause 7.7.31	Yes/No
22	Shelf life		Years

BIDDING COMPANY:				
NAME:	SIGNED:			
CAPACITY OF SIGNATORY:	DATE:			

### ANNEXURE 5: Specific requirements for item 5: 132 kV Three core oil to single core oil trifurcating (Splitter Box)

No.	Technical details	eThekwini Electricity's	Bidder's offer
		requirement	
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in Clause 7.7.9.3 of this specification?	Yes	Yes/No
10	Is the joint offered suitable for the system and service conditions offered in Clause 7.5?	Yes	Yes/No
11	Is the joint offered suitable for jointing all three core cable sizes listed in <b>Schedule B</b> ?	Yes	Yes/No
12	Cable joint to meet the requirements of IEC 60141-Part 1?	Yes	Yes/No
13	Installation instructions included in each joint kit?	Yes	Yes/No
14	Bill of materials included in each joint kit?	Yes	Yes/No
15	Drawing with all dimensions included?	Yes	Yes/No
16	Test certificates submitted with Bid?	Yes	Yes/No

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 5: Specific requirements for item 5: 132 kV oil Three core oil to single core oil trifurcating (Splitter Box)(Concluded)

17	Test certificate Number		
18	Connector(Ferrule) type?	Refer to Clause 7.7.9.10	Yes/No
19	Method of Earthing	Refer to Clause 7.7.9.11	
20	Installation time	Refer to Clause 7.7.9.1(u)	
21	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
22	Special jointer training?	Refer to Clause 7.7.31	Yes/No
23	Shelf life		Years

BIDDING COMPANY:	
NAME:	SIGNED:
CAPACITY OF SIGNATORY:	DATE:

# ANNEXURE 6: Requirements for item 6: 132 kV Oil Three Core to 132 kV XLPE trifurcating transition joint

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in Clause 7.7.10.3 of this specification?	Yes	Yes/No
10	Is the joint offered suitable for the system and service conditions offered in Clause 7.5?	Yes	Yes/No
11	Is the joint offered suitable for jointing all three core cable sizes listed in <b>Schedule B</b> ?	Yes	Yes/No
12	Cable joint to meet the requirements of IEC 60141-Part 1?	Yes	Yes/No
13	Is the cable joint offered for suitable for all 132 kV jointing three core XLPE cables to three single core SCCF cables as stated in <b>Schedule B</b> ?	Yes	Yes/No

BIDDING COMPANY:				
NAME:	_SIGNED:			
CAPACITY OF SIGNATORY:	DATE:			

# ANNEXURE 6: Requirements for item 6: 132 kV Oil Three Core to 132 kV XLPE trifurcating transition joint (Concluded)

14	Installation instructions included in each joint kit?	Yes	Yes/No
15	Cable joint to meet requirements of IEC 60141-part 1 and IEC 60840	Yes	Yes/No
16	Bill of materials included in each joint kit?	Yes	Yes/No
17	Drawing with all dimensions included?	Yes	Yes/No
18	Test certificates submitted with Bid?	Yes	Yes/No
19	Test certificate Number		
20	Connector(Ferrule) type?	Refer to Clause 7.7.10.6	Yes/No
21	Method of Earthing	Refer to Clause 7.7.10.11	
22	Installation time	Refer to Clause 7.7.1.1(u)	
23	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
24	Special jointer training	Refer to Clause 7.7.31	Yes/No
25	Shelf life		Years

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	_DATE:		

# ANNEXURE 7:Requirements for item 7 in Schedule A: 132 kV XLPE GIS switch switchgear Plug-in <u>Termination</u>

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	k\	<b>/</b>
5	Maximum operating voltage	145 kV	k\	<b>/</b>
6	Standard lightning impulse withstand voltage	650 kV	k\	<b>V</b>
7	Conductor circuit rating	40 kA(1s)	k.A	A(s)
8	Metallic sheath short circuit rating	40 kA(1s)	k.A	A(s)
9	Is the cable termination offered suitable for the system and service conditions stated in <b>clause</b> 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 132 kV XLPE cables listed in schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of IEC 62271-209?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 7:Requirements for item 7 in Schedule A: 132 kV XLPE GIS switch switchgear Plug-in Termination (Concluded)

15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
17	Connector(Ferrule) type	Refer to clause 7.7.11.8	
18	Method of Earthing	Refer to clause 7.7.11.9	
19	Installation time	Refer to Clause 7.7.1.1(u)	
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
21	Special jointer training?	Refer to Clause 7.7.31	Yes/No
22	Shelf life		Years

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	_DATE:		

# ANNEXURE 8: Specific requirements for item 8 in Schedule A: 132 kV XLPE Transformer Plug-in <u>Termination</u>

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable termination offered suitable for terminating all 132 kV XLPE cables listed in <b>Schedule B</b> ?	Yes	Yes/No
11	Cable termination to meet the requirements of IEC 60840?	Yes	Yes/No
12	Installation instructions included in each joint kit?	Yes	Yes/No
13	Bill of materials included in each joint kit?	Yes	Yes/No
14	Drawing with all dimensions included?	Yes	Yes/No

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	_DATE:		

# ANNEXURE 8: Specific requirements for item 8 in Schedule A: 132 kV XLPE Transformer Plug-in Termination (Concluded)

15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
17	Connector(Ferrule) type	Refer to clause 7.7.12.9	
18	Method of Earthing	Refer to clause 7.7.12.10	
19	Installation time?	Refer to Clause 7.7.1.1(u)	
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
21	Special jointer training?	Refer to Clause 7.7.31	Yes/No
22	Shelf life		Years

BIDDING COMPANY:	
NAME:	SIGNED:
CAPACITY OF SIGNATORY:	DATE:

### ANNEXURE 9: Requirements for item 9 in Schedule A: 132 kV XLPE Outdoor Termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	76/132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	40 kA(1s)	kA(s)
9	Creepage distance	31 mm/kV	mm/kV
10	Is the cable termination offered suitable for the system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No
11	Is the cable termination offered suitable for terminating all 132 kV XLPE cables listed in <b>Schedule B</b> ?	Yes	Yes/No
12	Cable termination to meet the requirements of IEC 60840, IEC 60815-3, and IEC 61462?	Yes	Yes/No
13	Installation instructions included in each joint kit?	Yes	Yes/No
14	Bill of materials included in each joint kit?	Yes	Yes/No
15	Drawing with all dimensions included?	Yes	Yes/No

BIDDING COMPANY:	
NAME:	_SIGNED:
CAPACITY OF SIGNATORY:	_DATE:

# ANNEXURE 9: Requirements for item 9 in Schedule A: 132 kV XLPE Outdoor Termination (Concluded)

16	Test certificates submitted with Bid?	Yes	Yes/NO
17	Test certificate Number		
18	Method of Earthing	Refer to clause 7.7.13.7	
20	Top bolt diameter	Refer to clause 7.7.13.5	
21	Installation time?	Refer to Clause 7.7.1.1(u)	
22	Is a special tool required for this termination?	Refer to Clause 7.7.1.1(w)	Yes/No
23	Special jointer training	Refer to Clause 7.7.31	Yes/No
24	Shelf life		Years

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

#### ANNEXURE 10: Requirements for item 10: 33 kV oil filled three-core to 33 kV XLPE transition joint

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	19/33 kV	kV
5	Maximum operating voltage	36 kV	kV
6	Standard lightning impulse withstand voltage	170 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No
10	Is the joint offered suitable for jointing all three core cable sizes listed in <b>Schedule B</b> ?	Yes	Yes/No
11	Cable joint to meet the requirements of IEC 60141-Part 1?	Yes	Yes/No
12	Is the cable joint offered for suitable for all 33 kV jointing XLPE cables to three single core SCCF cables as stated in <b>Schedule B</b> ?	Yes	Yes/No
13	Installation instructions included in each joint kit?	Yes	Yes/No
14	Cable joint to meet requirements of IEC 60141-part 1?	Yes	Yes/No

BIDDING COMPANY:	
NAME:	SIGNED:
CAPACITY OF SIGNATORY:	DATE:

# ANNEXURE 10: Requirements for item 10: 33 kV oil filled three-core to 33 kV XLPE transition joint (Concluded)

15	Bill of materials included in each joint kit?	Yes	Yes/No
16	Drawing with all dimensions included?	Yes	Yes/No
17	Test certificates submitted with Bid?	Yes	Yes/No
18	Test certificate Number		
19	Connector(Ferrule) type?	Refer to Clause 7.7.14.5	
20	Method of Earthing	Refer to Clause 7.7.14.10	
22	Installation time	Refer to Clause 7.7.1.1(u)	
23	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
24	Special jointer training	Refer to Clause 7.7.31	Yes/No
25	Shelf life		Years

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

### ANNEXURE 11: Requirements for item 11 of Schedule A: 33 kV XLPE transformer plug-in termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	19/33 kV		kV
5	Maximum operating voltage	36 kV		kV
6	Standard lightning impulse withstand voltage	170 kV		kV
7	Conductor circuit rating	40 kA(1s)		kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 33 kV XLPE cables listed in Schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of IEC 60840?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

## ANNEXURE 11: Requirements for item 11 of Schedule A: 33 kV XLPE transformer plug-in termination (Concluded)

17	Connector(Ferrule) type	Refer to clause 7.7.15.9	
18	Method of Earthing	Refer to clause 7.7.15.10	
19	Installation time?	Refer to Clause 7.7.1.1(u)	
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
21	Special jointer training	Refer to Clause 7.7.31	Yes/No
22	Shelf life		Years

BIDDING COMPANY:				
NAME:	SIGNED:			
CAPACITY OF SIGNATORY	DATE:			

### ANNEXURE 12: Requirements for item 12 of Schedule A: 33 kV XLPE outdoor termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	19/33 kV		kV
5	Maximum operating voltage	36 kV		kV
6	Standard lightning impulse withstand voltage	170 kV		kV
7	Conductor circuit rating	40 kA(1s)		kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 33 kV XLPE cables listed in <b>Schedule B</b> ?	Yes	Yes/No	
11	Cable termination to meet the requirements of IEC 60840?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 12: Requirements for item 12 of Schedule A: 33 kV XLPE outdoor termination (Concluded)

17	Connector(Ferrule) type	Refer to clause 7.7.16.9	
18	Method of Earthing	Refer to clause 7.7.16.10	
19	Installation time?	Refer to Clause 7.7.1.1(u)	
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
21	Special jointer training	Refer to Clause 7.7.31	Yes/No
22	Shelf life		Years

BIDDING COMPANY:				
NAME:	_SIGNED:			
CAPACITY OF SIGNATORY:	DATE:			

### ANNEXURE 13: Requirements for item 13 of Schedule A: 11 kV XLPE transformer plug-in termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	6/11 kV		kV
5	Maximum operating voltage	12 kV		kV
6	Standard lightning impulse withstand voltage	55 kV		kV
7	Conductor circuit rating	26.5 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 11 kV XLPE cables listed in Schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of IEC 60840?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	_DATE:		

# ANNEXURE 13: Requirements for item 13 of Schedule A: 11 kV XLPE transformer plug-in termination (Concluded)

17	Connector(Ferrule) type	Refer to clause 7.7.17.9	
18	Method of Earthing	Refer to clause 7.7.17.10	
19	Installation time?	Refer to Clause 7.7.1.1(u)	
20	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
21	Special jointer training	Refer to Clause 7.7.31	Yes/No
22	Shelf life		Years

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

### ANNEXURE 14: Requirements for item 14 of Schedule A: 33 kV PILC transformer termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	19/33 kV		kV
5	Maximum operating voltage	36 kV		kV
6	Standard lightning impulse withstand voltage	170 kV		kV
7	Conductor circuit rating	40 kA(1s)		kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in <b>clause</b> 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 33 kV PILC cables listed in schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 14: Requirements for item 14 of Schedule A: 33 kV PILC transformer termination (Concluded)

17	Method of Earthing	Refer to clause 7.7.18.10	
18	Installation time?	Refer to Clause 7.7.1.1(u)	
19	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
20	Special jointer training?	Refer to Clause 7.7.31	Yes/No
21	Shelf life		Years

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

### ANNEXURE 15: Requirements for item 15 of Schedule A: 33 kV PILC indoor switchgear termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	19/33 kV		kV
5	Maximum operating voltage	36 kV		kV
6	Standard lightning impulse withstand voltage	170 kV		kV
7	Conductor circuit rating	40 kA(1s)		kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in Clause 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 33 kV PILC cables listed in schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			
17	Method of Earthing	Refer to clause 7.7.19.10		

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 15: Requirements for item 15 of Schedule A: 33 kV PILC indoor switchgear termination (Concluded)

18	Installation time?	Refer to Clause 7.7.1.1(u)	
19	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
20	Special jointer training	Refer to Clause 7.7.31	Yes/No
21	Shelf life		Years

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY	DATF <sup>.</sup>	

### ANNEXURE 16: Requirements for item 16 of Schedule A: 33 kV PILC outdoor switchgear termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	19/33 kV		kV
5	Maximum operating voltage	36 kV		kV
6	Standard lightning impulse withstand voltage	170 kV		kV
7	Conductor circuit rating	40 kA(1s)		kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in <b>clause</b> 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 33 kV PILC cables listed in schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			
17	Method of Earthing	Refer to clause 7.7.20.9		

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 16: Requirements for item 16 of Schedule A: 33 kV PILC outdoor switchgear termination (Concluded)

18	Installation time?	Refer to Clause 7.7.1.1(u)	
19	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
20	Special jointer training	Refer to Clause 7.7.31	Yes/No
21	Shelf life		Years

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

### ANNEXURE 17: Requirements for item 17 of Schedule A: 11 kV PILC transformer termination

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer	
1	Name of manufacturer			
2	Place of Manufacture			
3	Manufactures reference Number			
4	Nominal Voltage $(U_0/U_n)$	6/11 kV		kV
5	Maximum operating voltage	12 kV		kV
6	Standard lightning impulse withstand voltage	55 kV		kV
7	Conductor circuit rating	26,5 kA(1s)		kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)		kA(s)
9	Is the cable termination offered suitable for the system and service conditions stated in <b>clause</b> 7.5 of this specification?	Yes	Yes/No	
10	Is the cable termination offered suitable for terminating all 11 kV PILC cables listed in schedule B?	Yes	Yes/No	
11	Cable termination to meet the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No	
12	Installation instructions included in each joint kit?	Yes	Yes/No	
13	Bill of materials included in each joint kit?	Yes	Yes/No	
14	Drawing with all dimensions included?	Yes	Yes/No	
15	Test certificates submitted with Bid?	Yes	Yes/No	
16	Test certificate Number			

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 17: Requirements for item 17 of Schedule A: 11 kV PILC transformer termination (Concluded)

17	Method of Earthing	Refer to clause 7.7.21.10	
18	Installation time?	Refer to Clause 7.7.1.1(u)	
19	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
20	Special jointer training?	Refer to Clause 7.7.31	Yes/No
21	Shelf life		Years

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

## ANNEXURE 18: Requirements for item 18 of Schedule A: 33 kV three-core PILC to 33 kV single core XLPE transition joint.

No.	Technical details	eThekwini Electricity's	Bidder's offer
		requirement	
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	19/33 kV	kV
5	Maximum operating voltage	36 kV	kV
6	Standard lightning impulse withstand voltage	170 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable joint offered suitable for jointing three core 33 kV PILC to single core 33 kV XLPE cables listed in <b>schedule B?</b>	Yes	Yes/No
11	Cable joint to meet the requirements of SANS 1332-2013, NRS 077 and IEC 60141-1?	Yes	Yes/No
12	Installation instructions included in each joint kit?	Yes	Yes/No
13	Bill of materials included in each joint kit?	Yes	Yes/No
14	Drawing with all dimensions included?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 18: Requirements for item 18 of Schedule A: 33 kV three-core PILC to 33 kV single core XLPE transition joint (Concluded)

16	Test certificate Number		
17	Connector(Ferrule) type?	Refer to Clause 7.7.22.6	
19	Method of Earthing	Refer to Clause 7.7.22.7	
20	Installation time	Refer to Clause 7.7.1.1(u)	
21	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
22	Special jointer training	Refer to Clause 7.7.31	Yes/No
23	Shelf life		

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	_DATE:		

# ANNEXURE 19: Requirements for item 19 of Schedule A: 11 kV single-core 630 $mm^2$ PILC straight joint

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_{\it O}/U_{\it n})$	6/11 kV	kV
5	Maximum operating voltage	12 kV	kV
6	Standard lightning impulse withstand voltage	55 kV	kV
7	Conductor circuit rating	26,5 kA(1s)	kA(s)
8	Metallic sheath short circuit rating	3,3 kA(1s)	kA(s)
9	Is the joint offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable joint offered suitable for jointing single core 11 kV PILC cables listed in schedule B?	Yes	Yes/No
11	Cable joints meet the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
12	Installation instructions included in each joint kit?	Yes	Yes/No
13	Bill of materials included in each joint kit?	Yes	Yes/No
14	Drawing with all dimensions included?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

# ANNEXURE 19: Requirements for item 19 of Schedule A: 11 kV single-core 630 mm<sup>2</sup> PILC straight joint (Concluded)

17	Connector(Ferrule) type?	Refer to Clause 7.7.23.5	
19	Method of Earthing	Refer to Clause 7.7.23.7	
20	Installation time	Refer to Clause 7.7.1.1(u)	
21	Is a special tool required for this joint?	Refer to Clause 7.7.1.1(w)	Yes/No
22	Special jointer training	Refer to Clause 7.7.31	Yes/No
23	Shelf life		

BIDDING COMPANY:		
NAME:	SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

### ANNEXURE 20: Requirements for item 20 of Schedule A: 11 kV single-core 630 mm<sup>2</sup> PILC copper cable

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	6/11 kV	kV
5	Maximum operating voltage	12 kV	kV
6	Standard lightning impulse withstand voltage	55 kV	kV
7	Conductor circuit rating	26,5 kA(1s)	kA(s)
9	Is the cable offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable offered meet the requirements stated in <b>clause 7.7.24</b> ?	Yes	Yes/No
11	Cable meets the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
23	Shelf life		

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

### ANNEXURE 21: Requirements for item 21 of Schedule A: 33 kV single-core 300 $mm^2$ PILC aluminium cable

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	19/33 kV	kV
5	Maximum operating voltage	36 kV	kV
6	Standard lightning impulse withstand voltage	170 kV	kV
7	Conductor circuit rating	40 kA(1s)	kA(s)
9	Is the cable offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable offered meet the requirements stated in <b>clause 7.7.25</b> ?	Yes	Yes/No
11	Cable meets the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
23	Shelf life		

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

### ANNEXURE 22: Requirements for item 22 of Schedule A: 11 kV three-core 300 $mm^2$ PILC aluminium <u>cable</u>

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	6/11 kV	kV
5	Maximum operating voltage	12 kV	kV
6	Standard lightning impulse withstand voltage	55 kV	kV
7	Conductor circuit rating	26,5 kA(1s)	kA(s)
9	Is the cable offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Is the cable offered meet the requirements stated in clause 7.7.26?	Yes	Yes/No
11	Cable meets the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
23	Shelf life		

BIDDING COMPANY:			
NAME:	SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

### ANNEXURE 23: Requirements for item 23 of Schedule A: 11 kV three-core 300 mm<sup>2</sup> PILC copper cable

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	6/11 kV	kV
5	Maximum operating voltage	12 kV	kV
6	Standard lightning impulse withstand voltage	55 kV	kV
7	Conductor circuit rating	26,5 kA(1s)	kA(s)
9	Is the cable offered suitable for system and service conditions stated in <b>clause 7.5</b> of this specification?	Yes	Yes/No
10	Is the cable offered meet the requirements stated in <b>clause 7.7.27</b> ?	Yes	Yes/No
11	Cable meets the requirements of SANS 1332-2013 and IEC 60141-1?	Yes	Yes/No
15	Test certificates submitted with Bid?	Yes	Yes/No
16	Test certificate Number		
23	Shelf life		

BIDDING COMPANY:	
NAME:	SIGNED:
CAPACITY OF SIGNATORY:	DATE:

# ANNEXURE 24: Requirements for Item 24a of schedule A: Link disconnecting boxes for single-line bonding with sheath voltage limiter and earth

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Short-circuit current withstand	40 kA(1s)	kA(s)
8	Unified specific creepage distance	53.7 kV/mm	kV/mm
9	Link box and SVL's offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Are link box and SVL's offered meet the requirements stated in <b>clause 7.7.28</b> ?	Yes	Yes/No
11	Link box and SVL's to meet the requirements of SANS 1332-2013, IEC 60099-4 and NRS 077.	Yes	Yes/No
12	Link Box accommodate 300 mm concentric bonding cable?	Yes	Yes/No
13	Test certificates submitted with Bid?	Yes	Yes/No
14	Test certificate Number		
15	Shelf life		

BIDDING COMPANY:			
NAME:	_SIGNED:		
CAPACITY OF SIGNATORY:	DATE:		

# ANNEXURE 25: Requirements for Item 24b of schedule A: Link disconnecting boxes for three-line bonding with sheath voltage limiter and earth

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Short-circuit current withstand	40 kA(1s)	kA(s)
8	Unified specific creepage distance	53.7 kV/mm	kV/mm
9	Link box and SVL's offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Are link box and SVL's offered meet the requirements stated in clause 7.7.29?	Yes	Yes/No
11	Link box and SVL's to meet the requirements of SANS 1332-2013, IEC 60099-4 and NRS 077.	Yes	Yes/No
12	Does link box accommodate 300 mm concentric bonding cable?	Yes	Yes/No
13	Provision made for 2 earth continuity cables?	Yes	Yes/No
14	Test certificates submitted with Bid?	Yes	Yes/No
15	Test certificate Number		
16	Shelf life		

BIDDING COMPANY:	
NAME:	SIGNED:
CAPACITY OF SIGNATORY:	DATE:

# ANNEXURE 26: Requirements for Item 24c of schedule A: Link disconnecting boxes for three-line (cross bonding) with sheath voltage limiter and earth

No.	Technical details	eThekwini Electricity's requirement	Bidder's offer
1	Name of manufacturer		
2	Place of Manufacture		
3	Manufactures reference Number		
4	Nominal Voltage $(U_0/U_n)$	132 kV	kV
5	Maximum operating voltage	145 kV	kV
6	Standard lightning impulse withstand voltage	650 kV	kV
7	Short-circuit current withstand	40 kA(1s)	kA(s)
8	Unified specific creepage distance	53.7 kV/mm	kV/mm
9	Link box and SVL's offered suitable for system and service conditions stated in clause 7.5 of this specification?	Yes	Yes/No
10	Are link box and SVL's offered meet the requirements stated in <b>clause 7.7.30</b> ?	Yes	Yes/No
11	Link box and SVL's to meet the requirements of SANS 1332-2013, IEC 60099-4 and NRS 077.	Yes	Yes/No
12	Link Box accommodate 300 mm concentric bonding cable?	Yes	Yes/No
13	Test certificates submitted with Bid?	Yes	Yes/No
14	Test certificate Number		
15	Shelf life		

BIDDING COMPANY:		
NAME:	_SIGNED:	
CAPACITY OF SIGNATORY:	DATE:	

#### **TENDERER'S EXPERIENCE**

#### **EVALUATION CRITERIA**

The tenderers will be checked if they meet the mandatory requirements. Any tenderer that does not meet any of the mandatory requirement will be deemed non-responsive.

All responsive tender offers will then be evaluated in accordance with eThekwini Municipality's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (January 2017) using an 80/20 preference point system.

#### **MANDATORY REQUIREMENTS**

- 1. The bidder must submit as part of the bid, the technical datasheet for the equipment quoted for.
- 2. Each item of SECTION 8 will be evaluated separately. The evaluation will be based upon the following:
  - a) The Tenderer's compliance to the technical specification detailed in SECTION 7 and RETURNABLE DOCUMENTS 1 to 26 of Section 10.
  - b) The total price per item over three (3) years; and
  - c) The 80/20 procurement point system. Each Tenderer must submit a certified copy of a BEE verification certificate if preferential points are to be claimed.