

Title: **SCORING CRITERIA FOR
TENDER TECHNICAL
EVALUATION OF
TRANSFORMERS AND
REACTORS BUSHINGS**

Unique Identifier: **240-86964223**

Alternative Reference Number: **n/a**

Area of Applicability: **Engineering**

Documentation Type: **Standard**

Revision: **3**

Total Pages: **10**

Next Review Date: **September 2026**

Disclosure Classification: **Controlled
Disclosure**

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Executive Summary

The technical tender evaluation is one of the critical gates in the enquiry chain to ensure that the bidders understand the customer's requirements and they are capable of designing, manufacturing, testing at works, prepare for shipment, transport, and can offer the required after sales technical support services. This tender technical evaluation criterion was created to evaluate all tenders for Capacitance Graded Bushings for Application in Power Transformers and Shunt Reactors, which are in accordance to specification 240-56062799. Compliance with this document will ensure that all suppliers bidding to supply capacitance graded bushings for transformers and reactors to Eskom are evaluated fairly and transparently. It minimises the influence of an individual discretion of a person doing the evaluation. The assessment of each supplier will be based on the information the supplier provided during the tender stage and on the factory assessment.

1. Introduction

This scoring criterion shall be used in conjunction with the Technical Specification for Capacitance-Graded Bushings for Application in Power Transformers and Shunt Reactors in All Eskom Divisions Standard 240-56062799, to ensure that all the suppliers are scored on the same basis and in a transparent manner. This document details the method of evaluating based on

The tender returns as detailed in Annexure A - C

The document shall be used for all capacitance-graded bushings for transformers and reactors, which are according to technical specification 240-56062799. The factory assessment shall form part of contract award requirements.

2. Supporting clauses

2.1 Scope

This document covers only the evaluation criteria of the bushings for transformer and reactors tender returns. It does not specify the requirements of this equipment.

2.1.1 Purpose

This document was produced in order to record the standardized scoring method as per the above scope.

2.1.2 Applicability

This document shall apply throughout Eskom Holdings Limited Divisions. It is applicable to all the *Contractors* that shall be tendering to supply capacitive AC bushings or any other HV bushings, as deemed applicable, to Eskom.

2.2 Normative/informative references

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.2.1 Normative

- [1] 240-56062799 Technical Specification for Capacitor Bushings for Application in Power Transformers and Shunt Reactors in All Eskom Divisions Standard

2.2.2 Informative

- [2] ISO 9001 Quality management systems
[3] 32-1034 Eskom procurement and supply management procedure
[4] 240-53207174 Practice note and guide on the implementation of the Preferential Procurement Policy Framework Act (PPPFA)

2.3 Definitions

2.3.1 General

Definition	Description
Contractor	Refers to the supplier or bidder
Equipment	Refers to a transformer or reactor bushing

Definition	Description
Tender returns	A document(s), filled or compiled by the bidder, returned as a response to a tender and were part of the requirements at the time of issuing the enquiry.

2.3.2 Disclosure classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

2.4 Abbreviations

Abbreviation	Description
SCOT	Steering Committee of Technology

2.5 Roles and responsibilities

All the Eskom employees and/or appointed bodies involved in the tender technical evaluation shall use this criterion.

2.6 Process for monitoring

This document and its relevance will be periodically evaluated by the relevant SCOT Care Group.

2.7 Related/supporting documents

The schedule A of the relevant AB schedules shall form part of the evaluation.

3. Specification Minimum Requirements

3.1 Methodology

The technical tender evaluation is one of the critical gates in the enquiry chain to ensure that the bidders understand the customer's requirements and they are capable of designing, manufacturing, testing at works, prepare for shipment, transport, and can offer the required after sales technical support services. This evaluation criterion will be used to measure the suppliers or bidders in these parameters. This will be achieved by doing both the desktop exercise using tender returns and prior to awarding a contract, evaluating each factory that is intended for supply of the bushings to Eskom.

The technical pass mark is 90 points.

The scoring details can be summarized as follows

Table 1: Technical Scoring Details

Item	Points	Remarks
Mandatory Requirements as per Annexure A and Annexure B		The supplier is disqualified for each criterion not met.
Scored Criteria as per Annexure C	100	The only tender returns that will progress to this gate are those who met the mandatory requirements. The pass mark is 90 points for a supplier to be declared technically accepted.
Factory Capability Assessment Evaluation		Factory capability assessment evaluation is not a scored assessment, thus will only be done pre-contact award and only on the bids that met technical desktop evaluation as per annexure A, B and C. Only the factories that have been declared accredited after the factory assessment, with no risk outstanding, can proceed to the next commercial process. Any risk identified during the assessment must be addressed within an agreed and reasonable period from the date of written notification.

3.2 Mandatory Requirements

3.2.1 Completeness of documents

The bidder is required to submit all the information required and the document must be correctly completed. The gaps (blanks), TBA, and similar remarks will render the document incomplete. In the cases where the required information is provided as an attachment or accompanying page, it must be so indicated and made easy to reference. If any of the required information is not available, the supplier will be disqualified.

3.2.2 Functional Requirements

These are the important parameters that the tenderers must comply with and are not negotiable at all. A bidder who does not meet these requirements will be disqualification. Parameters that are guaranteed to a value positively tighter than Eskom's requirements, without altering the functionality and compatibility will neither be penalized nor extra-awarded.

The list of all mandatory requirements is provided in Appendix A and B of this document.

3.3 Scored Technical Requirements

The points for each requirement are clearly indicated in Annexures C. A supplier must get a minimum of 90 points from this section.

3.4 Factory Assessment

The factory assessment will be done for each factory that is intended to supply Eskom with the bushings. Companies that have more than one factory will not be getting a blanket assessment; each factory will be evaluated on its own merit.

The critical areas during factory assessment will at least include:

- a) Factory profile indicating the range of bushings the factory can produce.
- b) Design criteria bases and guidelines
- c) Design process flow, tools and competencies
- d) Research and Development capabilities and partners
- e) Factory Equipment and Plant capacity

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Factories that have been previously evaluated, have a signed accreditation, and have supplied Eskom with bushings in the last 5 years may be exempted from this requirement and this will be at Eskom's discretion. This assessment could be either physically or virtually.

4. Authorisation

This document has been seen and accepted by

Name and surname	Designation
Bheki Ntshangase	Senior Manager – Substation Equipment and Diagnostics & SCOT Plant SC Chairman
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Mohamed Mukuddem	Engineer - Distribution Transformers ETT Chairperson
Lionel Jordaan	Senior Consultant - Generation Transformers ETT Chairperson

5. Revisions

Date	Rev	Compiler	Remarks
September 2021	3	K Dioka	Revised scoring criteria to align with commercial preferences.
July 2021	2	K Dioka	Revised Annexures A,B and C Revised to align with commercial requirements Document changed from a report to a standard
July 2019	1	K Dioka	New Document

6. Development team

This document was developed by Khayakazi Dioka and Sidwell Mtetwa.

7. Acknowledgements

Not applicable.

Annex A – Mandatory Requirements – Completeness of documents

No	Item details	Score		Remarks
1	Are the technical schedules completely filled and all the information provided?	Y	N	
2	Drawing Provided	Y	N	

Note: A “No” in any of these items will results to supplier being disqualified for further evaluation.

Annex B – Mandatory Requirements – Technical Requirements

Bushings Evaluation Criteria		Requirement	Yes	No	Remarks
	Product Type Number				
1.1	Technology Requirements				
1.1.1	Dry Type Bushing	as per schedule A	Yes	No	
1.1.2	Capacitive (Y/N)	Yes	Yes	No	
1.1.3	Shed Materials (Composite/Porcelain)	as per schedule A	Yes	No	
1.2	Ratings				
1.2.1	Dielectric (BIL, SIL, Applied 1 minute)	as per schedule A	Yes	No	
1.2.2	Electric (current and rated voltage)	as per schedule A	Yes	No	
1.2.3	Mechanical (Cantilever and seismic)	Minimum, as per schedule A	Yes	No	
1.3	Dimensions				
1.3.1	Stems and flanges	as per Schedule A	Yes	No	
1.3.2	Air vent	present	Yes	No	

Note: A "No" in any of these items will results to supplier being disqualified for further evaluation.

Annex C – Scored Requirements

Total points: 100

2	Scored Technical Requirements					
		Requirement	15	10	5	Remarks
2.1	Oil dimensions side	as per schedule	Perfect fit that complies with requirements	Acceptable with deviations that need no modification of turrets, CTs or winding connections		
2.2	Conductor (cable, removable solid rod, flexible)	as per schedule A	Complies with requirements	Acceptable with deviations		
2.3	Lifting lugs	As per clause 3.9 – 240-56062799	Complies with requirements			
2.4	Test points	permanent connection, self-grounded, sealing		Complies with requirements		
2.5	Corona shield technology	Aluminium epoxy coated		Complies with requirements		
2.6	Creepage distance	31mm/kV	Complies with requirements			
2.7	Ambient Parameters compliance	-10 to 50		Complies with requirements	-10 to 40	
2.8	Type test certificates/reports (dielectric, thermal, environment)	present			Acceptable	
2.9	Prevention of moisture ingress to the condenser	fiberglass tube			Provided in the design	