



Standard

Transmission

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EVALUATION CRITERIA FOR  
AUXILIARY TRANSFORMERS  
AND NECRTS**

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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, erect on site, commission the equipment, and can offer the required after sales technical support services.

Compliance with this document will ensure that all suppliers bidding to supply 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 outcome of the factory capability assessment.

It is important that each bidder clearly provides and references/index all the necessary information required in the technical schedules AB and Annexures of this document.

## **1. Introduction**

This is the technical tender evaluation criteria to be used for tenders against the specifications 24057648800 and 240-57648848

This document is one of the key essential features of the Transmission asset management system. The document has been compiled in line with the requirements of the ISO 55000 series of standards to not only demonstrate conformance to good asset management practice but to provide direction to the Transmission asset management activities for power transformers and reactors.

## **2. Supporting Clauses**

### **2.1 Scope**

This document presents the technical tender evaluation criteria to be used for tenders against the following documents: Specification for Auxiliary Transformers: 240-57648800 Specification for NECRT 24057648848.

#### **2.1.1 Purpose**

The purpose of this document is to:

- specify the asset management activities, resources and timescales for power transformers and reactors necessary to achieve the asset management objective.
- align the Transmission asset management practices with industry best practice as guided by the international standard for asset management: ISO 55001: Management System for Asset Management.

#### **2.1.2 Applicability**

This document applies only to tender for auxiliary transformers and Combined Neutral electromagnetic compensators, resistors and transformers.

## **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] ISO 9001:2015 Quality management systems - Requirements
- [2] 240-57648800 – Specification for new oil filled auxiliary transformers rated 1 MVA and below and 33kV and below.
- [3] 240-57648848 – Specification For Combined Three– Phase (NECS) With (NERS) And Auxiliary Transformers
- [4] 32-1033 Eskom Procurement Policy

### **2.2.2 Informative**

- [5] ISO 9001 Quality management systems
- [6] 32-1034 Eskom procurement and supply management procedure

## 2.3 Definitions

### 2.3.1 General

Definition	Description
<b>Contractor</b>	Refers to the supplier or bidder
<b>Equipment</b>	Refers to a transformer or a reactor
<b>Mark(s)</b>	Means a point in the scoring system
<b>Point(s)</b>	Means a mark on the scoring system
<b>Tender returns</b>	A document(s), populated 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
<b>HV</b>	Highest / High Voltage
<b>MVA</b>	Mega Volt-Amperes

## 2.5 Resources, 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 and B of the relevant AB schedules shall form part of the evaluations.

## 3. Evaluation Method and 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, erect on site, commission the equipment, 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 by evaluating each factory that is intended for supply of the equipment to Eskom. Bidder must meet all the mandatory requirements and then score a minimum of 80 points out of the discretionary requirements as per Annex C. It must be noted that factory capability assessment are not part of the minimum 80 points as they are not scored but are intended to identify any risk.

The scoring details can be summarized as follows:

Item	Remarks
Tender returns: Mandatory	If any one of the mandatory requirements is not met, the bidder will be disqualified.
Tender returns: Discretionary or scored criteria	Each bidder must score 80 or more points otherwise will be disqualified.
Factory capability assessment	Factory capability assessments are a pre-contract requirement and are mandatory for each factory that is intended to produce units for Eskom. Factories with a valid accreditation, as per the Eskom list or are in possession of the accreditation letter that is not older than twelve months, will be exempted from the Factory capability assessment requirement.

## **3.2 Mandatory Requirements**

The mandatory requirements are the non-negotiables and in this document, they are divided into two. First it is about the completeness of the documents, irrespective of the correctness or compliance of the information. The second portion is the evaluation of the submitted information against the requirements of the specifications and the international standards. These are important for operational and interchangeability reasons.

### **3.2.1 Completeness of documents**

The bidder is required to submit all the information required and each 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, this will result in a disqualification for missing information. All the technical information must be clearly indexed in the submission package.

### **3.2.2 Technical Requirements**

These are the important parameters that the tenderers must comply with. If the proposal by the bidder does not meet the minimum requirements, the bidder will be disqualified, and such proposals must be clearly listed in the deviation schedule. Items in the deviation schedule are not accepted until discussed and concluded so during the design review. It is encouraged that bidders who have different proposals defer such to a design review stage, at the bidding stage what is important is compliance. Deviating proposals that do not meet stipulated requirements will be disqualified, irrespective of their merits.

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

#### 4. Development team

This document was developed by

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#### 5. Authorisation

This document has been seen and accepted by

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#### 6. Revisions

Date	Rev	Compiler	Remarks
March 2014	1	C.P Wolmarans	New document
March 2014	2	C.P Wolmarans	Revised to be in line with 240-57648848. Transferred content to new Template. Section 3 has changed to reflect the new scorings.
May 2018	3	MM Ngubane	<ul style="list-style-type: none"><li>• Removed type tests from the evaluation because type tests are done at the tail end for each type</li><li>• Revised auxiliary components evaluation to one consolidated outcome per item from many points per item. This was for simplicity purposes per item.</li><li>• Losses removed as they form part of Total cost of ownership calculation.</li><li>• Revised penalty level.</li></ul>
November 2022	Rev 4	S. Miya	Revised evaluation methodology and requirements

**Annex A – Mandatory Requirements – Completeness of documents**

No	Item details	Score		Remarks
1	Are the schedules AB completely filled and all the information provided?	Y	N	

**Annex B – Mandatory Requirements – Technical Requirements**

No	Item details	Status		Remarks
1	Are the ratings (MVA and all service voltages) offered correct as per schedule A?	Y	N	
2	Is the vector group correct?	Y	N	
3	Are the impedances indicated as required in schedule A with tolerances in the acceptable range?	Y	N	

**Annex C – Discretionary Requirements - Scoring**

	Item	Remarks
1	<b>Dielectric Requirements</b> For full compliance on each of the parameters listed below, 15 points will be awarded. The below applies to Windings and Bushings for both HV and LV <ul style="list-style-type: none"> <li>• BIL</li> <li>• 60 second separation source</li> <li>• Induced overvoltage withstand</li> </ul>	
2	<b>Electrical Requirements</b> For full compliance on each of the parameters listed below, 7.5 points will be awarded. <ul style="list-style-type: none"> <li>• Tapping Ranges</li> <li>• Bushing technology</li> </ul>	



3	<p><b>Compatibility</b></p> <p>For full compliance on each of the parameters listed below, 10 points will be awarded.</p> <ul style="list-style-type: none"><li>• Combined unit in one tank (NECRTs)</li><li>• Terminals as per schedule (bushings/cable box)</li><li>• Bushing Stem Sizes and Flanges Dimensions</li></ul>	
4	<p><b>Thermal Requirements</b></p> <p>For full compliance on each of the parameters listed below, 5 points will be awarded.</p> <ul style="list-style-type: none"><li>• Oil and temperature rise as per schedules</li><li>• Cooling mode (KNAN or ONAN)</li></ul>	