



Eskom

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CRITERIA FOR GSM BANDS
ANTENNAE

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1. Introduction

The need for total network control and monitoring has necessitated for the integration of mobile network connectivity to complement Eskom Owned Telecommunication network, Metering and Telecontrol applications. This network requires specific antennae that operates across various GSM (Global System for Mobile) network frequency bands. This document outlines the mandatory technical requirements and evaluation criteria that will be followed in market enquiry for procurement of such antennae.

2. Supporting clauses

2.1 Scope

This document is part of Eskom Distribution process to acquire Cellular Network (GSM) antennae and related accessories for metering and Telecontrol applications. The document outlines the mandatory technical requirements and qualitative criteria that will be followed for the enquiry.

3. Supporting clauses

3.1.1 Purpose

This document aims to provide guidance on Eskom's technical evaluation criteria to be used when evaluating the tender submissions for Cellular network (GSM bands) antennae within Eskom Distribution applications.

3.1.2 Applicability

This document shall apply throughout Eskom Distribution.

3.2 Normative/informative references

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

3.2.1 Normative

- [1] ISO 9001 Quality Management Systems.
- [2] 240-87495873 Antennas, Cables and Connectors for Cellular Modems
- [3] 240-135089195 Generic Technical Requirements for Eskom Telecoms Contracts

3.2.2 Informative

240-48929482 Tender Engineering Evaluation Procedure

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3.3 Definitions

3.3.1 General

Definition	Description
Criteria	Process by which the inquiry will be evaluated and scored
Inquiry	A competitive or non-competitive request for information, interest, quotations, or proposals made to a supplier, a group of suppliers or the market at large.
Submission	The tender in accordance with the requirements of the enquiry
Technical Evaluator	End-users, technical experts nominated by the end-user and Divisional technical functionaries with the necessary technical expertise.

3.3.2 Disclosure classification

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

3.4 Abbreviations

Abbreviation	Description
dB	Decibels
Dx	Distribution
CoE	Centre of Excellence
GSM	Global System For Mobile Communication
ISO	International Organization for Standardization
N/A	Not applicable
MHz	Mega-Hertz
TET	Technical Evaluation Team
VSWR	Voltage Standing Wave Ratio

3.5 Roles and responsibilities

- **Procurement:** Inquiry Process Owner
- **Subject Matter Expert:** Lead Technical Evaluator.
- **Technical Evaluation Team member:** The delegated Engineer / Technical specialist who are responsible to review and evaluate technical aspects of the tender documents as per predefined evaluation criteria / strategy.

3.6 Process for monitoring.

N/A

3.7 Related/supporting documents

N/A

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4. Evaluation Criteria

Evaluation criteria is a process by which an inquiry is evaluated and scored to assess a supplier's capability to enter a contract with Eskom. The evaluation report and any actions that are listed or recommended as a result of the assessments and are by no means a confirmation or guarantee that any contract will be entered into between Eskom Distribution and the potential supplier(s).

Any statements, intentions, and/or actions expressed by the evaluation team during and after the assessment shall not be interpreted as the awarding of a contract and does not constitute any liability to Eskom Distribution regarding contract placement or post-contract performance guarantees.

The evaluation criterion is designed as "**GATED**" system where the first gate **Must** be passed by meeting minimum required thresholds before proceeding to the next gate.

The Gates in this criterion comprises of a **Mandatory for Evaluation Gate** (i.e. completed schedule A&B, and compliance to mandatory clauses) and **Qualitative Technical Evaluation Gate** (Desktop evaluation) in which schedule A&B weight is set at **80%** and Product Risk be at a weight of **20%**. **NB Overall Threshold is 90%**

4.1 Evaluation Requirements

4.1.1 Mandatory For Evaluation Requirements: GATE 1

Mandatory for Evaluation requirements are assessed on a Yes/ NO basis to determine whether the requirements are met or not. All Tenderers shall be evaluated against the returnables for **GATE 1 - Mandatory - compliance** as described in **Table 1** below. Any assessment result of "NO" in this gate shall automatically disqualify the tenderer and shall not be assessed further.

- **Mandatory For Evaluation Requirements**

Only suppliers which obtained compliance will progress to **GATE 2 – Technical Evaluation**.

Item	Enquiry Returnables Required	Compliant / Non-Compliant	Comments
1.	Supplier Stated Name & Main Address		
2.	Completed Schedule A & B With supporting Evidence (<i>Datasheets/Drawings/Photos/ Test reports etc</i>) required to demonstrate for compliance to Mandatory requirements.		

Table 1: Mandatory Evaluation Requirements

4.1.2 Qualitative Evaluation (Desktop Evaluation): GATE 2

In this gate, qualitative evaluation is conducted to identify the highest technically ranked tenderer using information provided in Schedule **A& B**. All supporting documents are assessed including datasheets, Photos, drawings, installation guides and where applicable product(s) samples submitted. All Submissions that obtain a final Technical Evaluation Score of 90% or higher will be recommended for further commercial evaluation.

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The **Overall Threshold** for supplier's submissions will to be deemed Compliant in this **Gate 2 is 90% Compliance** for all supplied products.

Table 2: Technical Evaluation Threshold

4.1.3 Scoring of Items in Technical Schedule A & B

This section comprises of scoring the Technical A&B Schedule. A&B Schedules are scored based on Compliant, Non-Compliant and Partially Compliant and based on the assessment outcome, weighted score level is assigned. The score levels are then translated into percentage scores to determine the overall score attained by the Tenderer. The scoring method is depicted in **Table 3**.

Score levels	% Score	Definition
3	100	<p>COMPLIANT</p> <ul style="list-style-type: none"> • Meet technical requirement(s) AND: • Cross-checked with the supporting documents provided AND • No foreseen technical risk(s) in meeting technical requirements.
1	33	<p>PARTIAL COMPLIANT WITH ASSOCIATED QUALIFICATIONS</p> <ul style="list-style-type: none"> • Meet technical requirement(s) with; • Acceptable technical risk(s) AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions.
0	0	<p>NON-COMPLIANT</p> <ul style="list-style-type: none"> • Does not meet technical requirement(s) AND/OR; • Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions. • No supporting documents provided

Table 3: Scoring of Items in Technical Schedule A&B

4.1.4 Product Risk Evaluation (Product and Overview)

As part of the product evaluation process, the evaluation team shall compile a view summarising the risks associated with the supplied products, particularly looking at the following:

- a) History of product being supplied, with emphasis on the supplier's experience and capacity to deliver the product consistently for the duration of the contract.
- b) Product operational durability throughout its lifespan

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c) Ability to supply the product across all Eskom Distribution stores.

Suppliers' product risk will be evaluated and scored according to the following scoring Table 4.

Criteria	Weight (%)	Score	(%)	Definition
Product Risk	20%	5	100	COMPLIANT <ul style="list-style-type: none"> Supply history of similar Product(s) for period of 2 years, AND Product is not planned for end of manufacturing in the next 5 years.
		3	60	COMPLIANT WITH ASSOCIATED QUALIFICATIONS <ul style="list-style-type: none"> Product has at least been in production for 2 years, AND Product is not planned for discontinuation in the next 5 years.
		0	0	NON-COMPLIANT OR NON-RESPONSIVE <ul style="list-style-type: none"> Development of the product has seized, AND/OR Product is earmarked for end of manufacturing/support within the next 3 years AND/OR No life cycle roadmap

Table 4: Product Risk Assessment

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4.2 Technical Requirements Weighting

All the technical product requirements shall be weighted according to their criticality on the product performance and against the specification as follows:

Item	240 – 87495873 Specification Clause Number:	Description	REQUIREMENTS	Weight High = 10 Medium = 5 Low = 1
1.	3.1	Antenna Type	As per Eskom's Request	10
2.	3.1.5.3.1	GSM Operating Frequency Band(s)	Tenderer Specify	10
3.	3.1.5	Average Gain	As per Eskom's Request	10
4.	3.1.3	VSWR	≤ 1.5:1	5
5.	3.1.5	Max Power Rating	≥10W	5
6.	3.1.5	Input Impedance	50Ω	5
7.	3.1.5	IP Rating	≥ IP65	10
8.	3.1.1	Material	Tenderer Specify	5
9.	3.1.1	Dimensions	Tenderer Specify	5
10.	3.1.2	Mounting	Tenderer Specify	10
11.	3.1.5.5.8	Terminal Fly-Lead Connector	Connector with SMA Male	5
12.	3.1.5.5.6	Operating Temp (Outdoor)	-20°C to +60°C	10
13.	3.1.5	Lightning Protection	Tenderer Specify	10

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5. Authorization

This document has been seen and accepted by:

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6. Revisions

Date	Rev.	Compiler	Remarks
August 2025	2	Sello Lekalakala	- Cancelled scoring on mandatory. - Included metering and telecontrol antennas. - Changed the document title and Unique Identifier.
June 2024	1	Tshepiso Moloisane	Original Document

7. Development team

- N/A

8. Acknowledgements

N/A

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