Eskom	Tutuka Power Station Strategy	Boiler Engineering

Title: **Tender Technical Evaluation Strategy for Refurbishment of Mill Main Gearboxes**

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Compiled by	Functional Responsibility	Authorised by
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CONTENTS

Page

TABLES

1. INTRODUCTION

Tutuka Power Station Boiler Plant intends to request service providers to tender for refurbishment of mill main gearboxes on an “as and when required” basis for period of 5 years. This technical evaluation strategy is developed to the assess the tenderers. The evaluation of the of the tender is based on the tenderer’s ability to meet qualitative requirements specified for the scope of work (no mandatory requirements). A weighted score card approach will be used to evaluate the tenders as per technical evaluation strategy.

2. SUPPORTING CLAUSES

2.1 SCOPE

Strategy for technical evaluation on the Tutuka Milling plant gearbox refurbishment contract tender returnable documentation.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and Technical Evaluation Team (TET) responsibilities for tender technical evaluation. The technical evaluation strategy serves as basis for the tender technical evaluation process.

2.1.2 Applicability

This document is applicable to Boiler engineering and all relevant stakeholders involved with the technical tender evaluation process for the Tutuka milling plant gearbox refurbishment contract.

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] 240-48929482: Tender Technical Evaluation Procedure

[2] ISO 9001 Quality Management Systems

[3] 15ENG BLR-0020: Maintenance Execution Strategy for Milling Plant

[4] 32-1034: Eskom Procurement and Supply Chain Management Procedure

[5] 32-1033: Eskom's Procurement and Supply Chain Management Policy

2.2.2 Informative

N/A

2.3 DEFINITIONS

N/A

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
ISO	International Organization for Standardization
kW	Kilo Watt
QCP	Quality Control Procedure
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

All responsibilities have been defined in the Tender Engineering Evaluation Procedure (240-48929482).

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

[1] 240-48929482: Tender Technical Evaluation Procedure

3. TENDER TECHNCIAL EVALAUTION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is **70%**.

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	P Chauke	Senior Engineer Boiler Plant
TET 2	Henry Hlatshwayo	Engineer Boiler Plant
TET 3	Sello Kgantsi	Manager Maintenance Boiler Plant
TET 4	Jaco Potgieter	Snr Technician Maintenance

3.3 MANADATORY TECHNICAL EVALUATION CRITERIA

N/A

QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 2: Qualitative Technical Evaluation Criteria

No.	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1	Experience of the company in manufacturing or refurbishment of gearboxes	Years of experience in manufacturing of gears/refurbishment of gearboxes: • 5 - 11 years or more. • 4 - 6 to 10 years. • 2 - 2 to 5 years. • 0% - 1 year or less.	10	-
2	Previous experience in refurbishment of gearboxes with a power rating of 500kW or more	Number of previous contractor/orders for manufacturing or refurbishment of 500kW plus gearboxes: • 5 - 4 or more purchase orders. • 4 - 3 purchase orders. • 2 - 2 purchase orders. • 0% - 1 purchase order.	10	-
3	Detail methodology of the refurbishment process for a gearbox with a 500kW or greater power rating that had the following: • Leaking input shaft seals • Broken gear teeth • Gears with pitting • Gears with cracks • Worn bearing housing • Gearbox casing with cracks • Gearbox reported to have been overheating • Gearbox reported to have high bearing vibrations	Detailed methodology submitted: • 5 - Methodology covering 5 or more failure modes. • 4 - Methodology covering 4 failure modes. • 2 - Methodology covering 3 failure modes. • 0% - Methodology covering 2 or less failure modes.	40	-

No.	**Qualitative Technical Criteria Description**	**Reference to Technical Specification / Tender Returnable**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
4	Detailed example of a QCP for the refurbishment of a gearbox with a 500kW or greater power rating for the following failure modes: • Leaking input shaft seals • Broken gear teeth • Gears with pitting • Gears with cracks • Worn bearing housing • Gearbox casing with cracks • Gearbox reported to have been overheating • Gearbox reported to have high bearing vibrations	Detailed QCP's submitted: • 5 - QCP's for 3 to 5 failure modes with specifications and relevant standards • 4 - QCP's for 3 to 5 failure modes with correct specifications but without standards • 2 - QCP's for 3 to 5 failure modes without specifications and standards. • 0% - QCP's not covering all failure modes.	10	-
5	Capacity of the tenderer to refurbish a gearbox at the earliest lead times	Expected lead times from time of collection of a damaged gearbox to delivery of a refurbished gearbox: • 5 – </= 6 weeks. • 4 - </= 8 weeks. • 2 - </= 12 weeks • 0% - > 12 weeks.	5	
6	Proof of workshop premises with cranes and relevant machinery for manufacturing: • Floor area of workshop and crane size. • Lathe machine (make and model). • Milling machine (make and model). • Boring mill (make and model). • Hydraulic press (Capacity).	Proof of ownership or rental of workshop (municipal bill or deeds letter or lease letter) and proof of ownership or rental of machinery: • 5 - Proof of workshop with crane and all required machines. • 4 - Proof of workshop with crane and 2 machines (lathe and milling machine or lathe and boring mill or milling machine and boring mill). • 2 - Proof of workshop with crane and 1 machine (lathe or without milling machine, boring mill. • 0% - Proof of workshop without crane and without machinery	20	-

No.	**Qualitative Technical Criteria Description**	**Reference to Technical Specification / Tender Returnable**	**Criteria Weighting (%)**	**Criteria Sub Weighting (%)**
7	Capacity to do gearbox testing at facilities: • No-load test facilities (drive unit size). • 50% load test facility (drive unit size). • 100% load test facility (drive unit size).	Details of facility with photos: • 5 - Proof of 100% load test facility. • 4 - Proof of 50% load test facility. • 2 - Proof of no-load test facility. • 0% - No proof of testing facilities provided.	5	-
			Total: 100	

Table 3: Qualitative Evaluation Criteria Scoring Table

Score	(%)	Definition
5	100	**COMPLIANT** • Meet technical requirement(s) AND; • No foreseen technical risk(s) in meeting technical requirements.
4	80	**COMPLIANT WITH ASSOCIATED QUALIFICATIONS** • Meet technical requirement(s) with; • Acceptable technical risk(s) AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions.
2	40	**NON-COMPLIANT** • Does not meet technical requirement(s) AND/OR; • Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions.
0	0	**TOTALLY DEFICIENT OR NON-RESPONSIVE**
Note 1: The scoring table does not allow for scoring of 1 and 3. **Note 2**: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.		

3.4 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4
1. None				
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**	**TET 4**
1. Experience of the company in manufacturing or refurbishment of gearboxes	X	X	X	X
2. Previous experience in refurbishment of gearboxes with a power rating of 500kW or more	X	X	X	X
3. Detail methodology of the refurbishment process for a gearbox with a 500kW or greater power rating that had the following:	X	X	X	X
4. Detailed example of a QCP for the refurbishment of a gearbox with a 500kW or greater power rating for the following failure modes	X	X	X	X
5. Capacity of the tenderer to refurbish a gearbox at the earliest lead times	X	X	X	X
6. Proof of workshop premises with cranes and relevant machinery for manufacturing	X	X	X	X
7. Capacity to do gearbox testing at facilities:	X	X	X	X

Any member(s) with a direct conflict of interest with any supplier when tender returnable documents received for technical evaluation will be immediately removed from the technical evaluation team. The member(s) will not participate in the technical evaluation any further. It will be indicated on the assessment sheet and supported with the declaration of interest form.

Replacement of technical evaluation members can be done in formal appointment letters issued with signature of appointment by some person and/or person in his/her position as the initial appointment letters. Reason for replacing a member must be clearly stated on appointment. If it is an acting person, an acting letter must be accompanied by appointment letter.

Not more than 50% of current TET members can be substituted. Changes to TET members will be done as an amendment of this strategy and will not require revision of it.

Technical desktop evaluation will require minimum of 3 members to perform the evaluation.

3.5 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.5.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	Experience of the company in manufacturing or refurbishment of gearboxes (at least 6 years)
2.	Previous experience in refurbishment of gearboxes with a power rating of 500kW or more (3 purchase orders)
3.	Detail methodology of the refurbishment process for a gearbox with a 500kW or greater power rating that had the following (Detailed methodology with 4 failure modes)
4.	Detailed example of a QCP for the refurbishment of a gearbox with a 500kW or greater power rating for the following failure modes (QCP's for 3 to 5 failure modes with correct specifications but without standards)
5.	Capacity of the tenderer to refurbish a gearbox at the earliest lead times (Less than 8 weeks lead time)
6.	Proof of workshop premises with cranes and relevant machinery for manufacturing (Proof of workshop with crane and 2 machines (lathe and milling machine or lathe and boring mill or milling machine and boring mill).
7.	Capacity to do gearbox testing at facilities (Proof of 50% load test facility).

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Experience of the company in manufacturing or refurbishment of gearboxes (less than 6 years)
2.	Previous experience in refurbishment of gearboxes with a power rating of 500kW or more (2 purchase orders)
3.	Detail methodology of the refurbishment process for a gearbox with a 500kW or greater power rating that had the following (Detailed methodology with 3 failure modes)
4.	Detailed example of a QCP for the refurbishment of a gearbox with a 500kW or greater power rating for the following failure modes (QCP's for 3 to 5 failure modes without specifications and standards)
5.	Capacity of the tenderer to refurbish a gearbox at the earliest lead times (More than 8 weeks lead time)

6.	Proof of workshop premises with cranes and relevant machinery for manufacturing (Proof of workshop with crane and 1 machine (lathe or milling machine or boring).
7.	Capacity to do gearbox testing at facilities (Proof of no-load test facility).

3.5.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	-

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Kagiso Molokoane	Technical Plant Manager (A)
Lele Masote	Middle Manager Engineering
Sello Kgantsi	Manager Maintenance Boiler Plant

5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2024	1	A Manganyi	New Document
August 2025	2	P Chauke	Changed criteria, technical evaluation threshold and TET

6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- N/A

7. ACKNOWLEDGEMENTS

- Amukelani Manganyi
- Kagiso Molokoane
- Kagiso Komape