Eskom	Report	Engineering

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Compiled by	Functional Responsibility	Authorised by
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Date: ……	Date: ……	Date: ……

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TABLES

1. INTRODUCTION

Eskom is implementing a centre-led strategic sourcing to set up multiple repair contracts for Low Voltage (LV) Motors to service various Power Stations. The contracts will be for “as and when” required basis for a period of 5 years and managed by the respective Power Station. A technical evaluation strategy is required to document the technical evaluation criteria as per the Tender Technical Evaluation Procedure 240-48929482.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document describes how tenders received for the repair of LV motors required by various Eskom Power Stations will be technically evaluated and scored. The team members are listed and appointed in this document along with their responsibilities. The document also describes the acceptable and unacceptable risks and qualifications and/or conditions.

The Tender Technical Evaluation Strategy will define the following technical evaluation criteria:

- Mandatory Evaluation Criteria
- Qualitative Evaluation Criteria
- TET Member Responsibilities
- Acceptable/Unacceptable Qualifications

No changes will be permitted to be made to the evaluation criteria once the Technical Evaluation Strategy is approved by the relevant Lead Engineering Senior Manager.

2.1.1 Purpose

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

2.1.2 Applicability

This document applies to all Generation Power Stations that may require new LV motors repair contracts in accordance with the authorised procurement strategy, as well as Group Technology Production Engineering Integration.

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] Low Voltage Motor Repair/Refurbishment Technical Schedule A&B Template.

2.2.2 Informative

[3] SANS 10242-1 The rewinding and refurbishing of rotating electrical machines Part 1: Low-voltage three-phase induction motors.

2.3 DEFINITIONS

None

2.3.1 Disclosure Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
CoE	Centre of Excellence
EWDL	Engineering Work Design Lead
GT	Group Technology
LV	Low Voltage
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

N/A

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 75%.

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Marubini Manyage	Chief Engineer – Electrical CoE
TET 2	Refiloe Sibiya	Senior Advisor – PEI
TET 3	Sabelo Nene	Systems Engineer – Tutuka Power Station
TET 4	Daan Dreyer	Systems Engineer – Kriel Power Station
TET 5	Mohammed Bux	Systems Engineer – Majuba Power Station

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

In accordance with 240-48929482, an assessment of 'NO' against any criterion referenced # 1 to 3 in Table 2 shall disqualify the assessed tendered design from further Qualitative Evaluation.

Table 2: Mandatory Technical Evaluation Criteria

Ref #	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Submission of completed LV Motor Repair/Refurbishment Technical Schedule YES or NO.	As per Service Information Tender Returnable	Mandatory and qualitative evaluation phases of each tendered design cannot be conducted / completed without this document
2.	Confirmation that the tenderer has a local LV Motor repair workshop with testing capability of both AC and DC Motors. YES or NO.	1.02, 1.03, 2.10 and 3.08 of LV Motor Repairs/Refurbishment Technical Schedule A&B Tender Returnable	Eskom motor repair/refurbishment to be done by a company with a workshop, and ability to test LV Motors at its workshop.
3.	Confirmation that the tenderer will refurbish and repair LV Motors as per SANS 10242-1 The rewinding and refurbishing of rotating electrical machines, Part 1: Low-voltage three-phase induction motors. YES or NO.	2.05, 2.06, 2.12, 2.21, 2.23, 3.07, 3.09, 5.03 and 9.01 of LV Motor Repairs/Refurbishment Technical Schedule A&B Tender Returnable	To ensure proper management of repairs and refurbishment of LV Motor.

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

In accordance with 240-48929482, tenders that have met all the Mandatory Evaluation Criteria will be evaluated against the Qualitative Evaluation Criteria defined in Table 3 below. The scoring of qualitative criteria shall be based on the degree of achievement by the tenderer to meet the technical requirements defined in each tendered design Technical Schedule. Each item shall have the specific sub-weighting criteria that shall be scored in accordance with Table 2 of 240-48929482. For scope of works where the sub-criteria is not applicable that sub-criteria weighting, which is blank in Table 3, will be set to zero (0%) when the final specific qualitative technical evaluation criteria matrix is set by the respective End-user TET Member.

The minimum weighted final score (threshold) required for the tendered scope of work to be considered FUNCTIONALLY ACCEPTABLE from a technical perspective is 75%.

The recommendation on the highest technically ranked tenderer shall be based on the final scoring comparisons and the tenderer with the highest score shall be recommended from a technical perspective, if the weighted final score exceeds the defined threshold.

Table 3: Qualitative Technical Evaluation Criteria

Criteria Ref #	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	**Manufacturing Facility and Capability**		**Technical Schedule**	**35**	
	1.01	Crane size	• 2.01		2
	1.02	Cleaning facility	• 2.02		2
	1.03	Burn out ovens facility	• 2.03		2
	1.04	Curing oven facility	• 2.04		2
	1.05	Hot-spots repair capability	• 2.07		2
	1.06	Core restack capability	• 2.08		2
	1.07	Method of winding insulation impregnation	• 2.11		2
	1.08	Broken/porous rotor bar repair and replacement capabilities	• 2.13		2

Criteria Ref #	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	1.09	Shaft repair capability	• 2.14		2
	1.10	Balancing machine	• 2.15		2
	1.11	Bearings assessment and replacement capability	• 2.16		2
	1.12	End shield repair capability	• 2.17		2
	1.13	Armature rotor repair capability	• 2.18		2
	1.14	DC Commutator and brush gear repair capabilities	• 2.19		2
	1.15	Concentricity checks capability	• 2.20		2
	1.16	Spray booth facility	• 2.22		2
	1.17	Bearing type and grease base	• 2.26 and 2.27		3
2.	**Testing Facility and Capability**		**Technical Schedule**	**30**	
	2.01	Insulation resistance testing facility	• 3.01		3
	2.02	High voltage testing facility	• 3.02		3
	2.03	Phase resistance testing facility	• 3.03		3
	2.04	Interturn testing facility	• 3.04		2
	2.05	Stator and Rotor core testing facility	• 3.05		3
	2.06	Rotor bar testing method	• 3.06		3
	2.07	Full load testing facility	• 3.10		2
	2.08	Rotor static and dynamic balancing capability	• 3.11		3
	2.09	Full vibration spectrum analysis capability	• 3.12		3

Criteria Ref #	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	2.10	Routine Test report with results as per items 3.01 to 3.08	• 3.13		3
	2.11	NDT Shaft/Fans	• 3.14		2
3.	**Skills Capability**		**Technical Schedule**	**20**	
	3.01	Qualified armature rewinder	• 4.01		5
	3.02	Technical personnel (e.g. Engineer, Technician)	• 4.02		4
	3.03	Qualified Fitter	• 4.03		6
	3.04	Quality control personnel	• 4.04		3
	3.05	Workshop personnel (manager)	• 4.05		2
4.	**Transport Capability**		**Technical Schedule**	**2**	
	4.1	Number of trucks	• 5.01		1
	4.2	Maximum tonnage capability	• 5.02		1
5.	**Documentation**		**Technical Schedule**	**3**	
	5.1	Failure report sample covering incoming assessment, inspections, testing and failure analysis	• 6.01		2
	5.3	Minimum period of information storage of Electronic data	• 6.02		1
6.	**Services, Certification and Production**		**Technical Schedule**	**10**	
	6.01	Field services available	• 7.01		2
	6.02	Emergency Response time	• 7.02		2

Criteria Ref #	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	6.03	SABS 10242-1 certification related to LV Motor repairs	• 9.02		3
	6.04	Warrantee on Workmanship	• 10.01		3
				TOTAL: 100	

3.5 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	**TET 3**	**TET 4**	**TET 5**
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	X
6	X	X	X	X	X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	Inviting Suppliers without an Eskom technically prequalified factory, provided that the factory availability is a tender evaluation criteria
2.	Tendering without conducting Site visit/s for items described in the Scope of Work template provided by Eskom

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Mandatory criteria 1 – 3 not evaluated and/or satisfied

3.6.2 Exceptions/Conditions

Table 7: Acceptable Technical Exceptions/Conditions

Risk	Description
1.	Declining to provide technical details accurately deemed intellectual proprietary.

Table 8: Unacceptable Technical Exceptions/Conditions

Risk	Description
1.	Failure to provide repair workshop name, and documents for assessing compliance with mandatory technical evaluation criteria.

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Refiloe Sibiya	Senior Advisor – GT PEI
Daan Dreyer	Systems Engineer – Kriel Power Station
Sabelo Nene	Systems Engineer – Tutuka Power Station
Mohammed Bux	Systems Engineer – Majuba Power Station

5. REVISIONS

Date	Rev.	Compiler	Remarks
11 April 2019	0.1	Marubini Manyage	First Draft Issue for Review by Stakeholders

6. DEVELOPMENT TEAM

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

- Marubini Manyage

7. ACKNOWLEDGEMENTS

- None