Eskom	Strategy	Engineering

Title:	Mookodi 1st 500MVA Transformer – Technical Tender Evaluation Strategy for the installation of tubular aluminium conductors at Mookodi substation	Unique Identifier:	**Moo21P05-SE-D90**
		Alternative Reference Number:	**NOT APPLICABLE**
		Area of Applicability:	**Engineering**
		Documentation Type:	**Strategy**
		Revision:	1
		Total Pages:	**15**
		Next Review Date:	**NOT APPLICABLE**
		Disclosure Classification:	**CONTROLLED DISCLOSURE**

Compiled by	Functional Responsibility	Authorized by
.....	.....	.....
Christy Thomas	**Rukesh Ramnarain**	**Subhas Maharaj**
Substation Engineer (Elec.):	**Chief Engineer (Elec.):**	**Senior Manager:**
Substation Engineering	**Substation Engineering**	**Substation Engineering**
Date: 24/05/2023	Date: 24/05/2023	Date: 24/5/2023

1. CONTENTS

Page

FIGURES

TABLES

Figure 1: Geographical Location

1. INTRODUCTION

This document establishes the technical evaluation strategy for the evaluation of tenders that will be received in response to the request to tender for the work to be done at Mookodi Substation. This strategy is a high level consideration of the key aspects that will give direction to the technical evaluation process. It is in accordance with the Tender Engineering Evaluation Procedure (240-48929482) [1].

This document covers the work required for the installation of tubular aluminium conductors as well as erection of post insulators at Mookodi Substation.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document covers the technical evaluation strategy for the evaluation of the tenders for Mookodi 1st 500MVA Transformer.

The aim of this document is to provide a technical evaluation strategy that shall be used for the technical evaluation of the tenders for the installation of tubular aluminium conductors at Mookodi Substation. Furthermore, it will ensure transparency in the evaluation process as per the requirements set out in the Tender Engineering Evaluation Procedure (240-48929482) [1].

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Qualitative Evaluation Criteria and 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 shall apply to the installation of tubular aluminium conductors at Mookodi Substation in the Northern Grid.

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 Engineering Evaluation Procedure

[2] 32-1034: Eskom Procurement and Supply Management Procedure

[3] 240-89926574 – Specification for the installation of tubular aluminium conductors

[4] OHS Act, 1993: Electrical Installation Regulations, 2009

[5] OHS Act, 1993: Construction Regulations, 2014

[6] Occupational Health and Safety Act (No. 85 of 1993)

[7] ESKPVAEY6: 2005: Operating Regulations for High Voltage Systems

2.2.2 Informative

None

2.3 DEFINITIONS

2.3.1 Classification

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

2.4 ABBREVIATIONS

Table 1: List of Abbreviations

Abbreviation	Description
CV	Curriculum Vitae
EDWL	Engineering Design Work Lead
HV	High Voltage
LDE	Lead Discipline Engineer
MVA	Mega Volt Ampere
ORHVS	Occupational Regulations for High Voltage Systems
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

Engineering Manager: All Engineering Managers throughout Eskom shall ensure that all staff, in their respective areas understand and adhere to this procedure.

Engineering Design Work Lead (EDWL): The EDWL is responsible to manage the execution and adherence to this procedure. Typically on New Build projects the EDWL role is fulfilled by the Lead Discipline Engineer (LDE) and on existing asset projects the EDWL role is fulfilled by the relevant System Engineer / Plant Engineer.

Technical Evaluation Team (TET) member: The delegated engineers / technical specialists who are responsible to review and evaluate technical aspects of the tender documentation as per the Tender Technical Evaluation Strategy.

2.6 PROCESS FOR MONITORING

NOT APPLICABLE

2.7 RELATED/SUPPORTING DOCUMENTS

NOT APPLICABLE

3. TENDER TECHNCIAL EVALUATION STRATEGY

3.1 SCOPE OF WORK

The scope of work under this project will comprise the following activities:

1. Mounting busbar post insulators onto the existing busbar steelwork structures.
2. Cutting the supplied tubular aluminium conductor to lengths specified in the project's tubular busbar layout drawings.
3. Installing damping conductors in the cut tubular conductors.
4. Affixing the colour coded end caps to the cut tubular conductors.
5. Mounting the tubular conductor on to the erected busbar post insulators and affixing them to the post insulators using the supplied tubular clamps.

All works under this project will be executed in accordance with the design drawings, specifications, standards, and equipment and accessories outlines that will be supplied to the appointed contractor.

3.2 TECHNICAL EVALUATION THRESHOLD

The scoring for each tender will be done as per the scoring table shown below. This table is as per the requirements of Tender Engineering Evaluation Procedure [1]. The minimum weighted average required for the tender to be considered technically acceptable is 70%.

Table 2: Evaluation Scoring Table

Score	Percentage	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.		

3.3 TET MEMBERS

Table 3: TET Members

TET number	TET Member Name	Designation
TET 1	To be confirmed at tender evaluation stage.	Substation Engineer (Electrical)
TET 2	To be confirmed at tender evaluation stage.	Substation Engineer (Electrical)

3.4 TECHNICAL RETURNABLES

The following documents shall be submitted when tendering:

a) List of key personnel, their experiences (include CV detailing project-specific work experience for each employee) and academic qualifications. Also include total number of manpower to be dedicated to this project.

b) List of relevant and comparable projects undertaken. The list shall include project scope, substation name, completion date, project value and client contact person and details. The contractor shall further include any concessions made during each project execution.

c) List of all tools and equipment to be used.

d) Erection method statements (including detailed step-by-step procedures) for the following:

I. Erection of post insulators

II. Handling and transportation of tubes from storage to HV yard

III. Cutting and trimming of tubes to specified sizes

IV. Lifting and installation of tubular conductors

V. Installation of end-caps

VI. Installation and termination of damping conductors

VII. Installation of clamps

The following documents shall be submitted prior to tender award:

a) Proof of training of supervisor as responsible person in accordance with Eskom ORHVS. Copy of ORHVS certificate shall be attached.

b) Calibration certificates of applicable tools and equipment

c) Test certificates of lifting equipment

d) Proof of qualification of rigger

e) Proof of qualification of operator of machinery

f) Quality, inspection and test plans(QITP)

3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA (B)

Compliant tenders will be evaluated against a set of weighted qualitative evaluation criteria. The evaluation criterion has been broken down into sections and a percentage weighting has been allocated to each section. Percentage weighting summary figures is indicated in Table 4 below.

Table 4: A: Installation of tubular aluminium conductors - Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
A1	**Relevant company experience (Projects completed in past 5 years)**		As per 240-89926574, section 8, page 9	**40**	
	1.1	Number of projects	As per 240-89926574, section 8, page 9		10
	1.2	Project scope	As per 240-89926574, section 8, page 9		10
	1.3	Project value	As per 240-89926574, section 8, page 9		10
	1.4	Substation name and completion date	As per 240-89926574, section 8, page 9		5
	1.5	Client contact person and details	As per 240-89926574, section 8, page 9		5
A2	**Qualifications and experience of key personnel**		As per 240-89926574, section 8, page 9	**30**	
	2.1	Academic qualifications	As per 240-89926574, section 8, page 9		5
	2.2	Project-specific work experience	As per 240-89926574, section 8, page 9		20

	2.3	Total number of manpower to be dedicated to this project	As per 240-89926574, section 8, page 9		5
A3	**Construction/method statements**		As per 240-89926574, section 8, page 9	**20**	
	3.1	Relevancy of method statements	As per 240-89926574, section 8, page 9		10
	3.2	Adequacy of method statements	As per 240-89926574, section 8, page 9		10
A4	**Tools and Equipment**		As per 240-89926574, section 8, page 9	**10**	
	4.1	Adequacy of tools and equipment	As per 240-89926574, section 8, page 9		10
				TOTAL: 100	

3.6 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Qualitative Criteria (A) Number	TET 1	TET 2
A1	X	X
A2	X	X
A3	X	X
A4	X	X

3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.7.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	**None.**

Table 7: Unacceptable Technical Risks

Risk	Description
1.	**Contractors who do not have the relevant experience.**

3.7.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	**None.**

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	**None.**

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Rukesh Ramnarain	Substation Engineering, Chief Engineer
Subhas Maharaj	Substation Engineering, Senior Manager

5. REVISIONS

Date	Rev.	Compiler	Remarks
May 2023	1	Christy Thomas	First issue

6. DEVELOPMENT TEAM

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

- None

7. ACKNOWLEDGEMENTS

I would like to thank the design team for their input into the document.

8. APPENDIX A

Item	Description	Section Criteria Weight (%)	Criteria Sub Weighting (%)	Score (0-5)	Sub Weighting (%) = ((Score)/5) X (criteria sub weighting)	Criteria
A1	**Relevant company experience (comparable projects undertaken in past 5 years)**	**40%**	**-**	**-**	**-**	-
1.1	Number of projects		10%			>8 Projects = 5 ; 3 to 7 projects = 4 ; 1 to 2 projects = 2 ; none provided = 0
1.2	Project scope		10%			provided = 5 ; None provided = 0
1.3	Project value		10%			> R8m = 5 ; R2m to R8m = 4 ; < R2m = 2
1.4	Substation name and completion date		5%			Name and date provided = 5 ; Only name or date provided = 2 ; None provided = 0
1.5	References : Client contact person and contact details		5%			Contact name and contact details provided = 5 ; Only contact name or only contact details provided = 2 ; None provided = 0
List of relevant and comparable projects undertaken (Maximum points = 25) Total Score						
List of relevant and comparable projects undertaken (Maximum Section weight = 40%) Weighted score = (score) x (40/25)						
A2	**Qualifications and experience of key personnel**	**30%**	**-**	-	**-**	**-**
2.1	Academic qualifications		5%			Diploma = 5 ; Certificate/artisan = 4 ; Grade 12 (National Senior Certificate) and National (vocational) Cert. level 4 = 2 ; None provided = 0
2.2	Project-specific work experience		20%			>8 Projects = 5 ; 3 to 8 Projects = 4 ; <3 Projects = 2 ; None provided = 0
2.3	Total number of manpower to be dedicated to this project		5%			>20= 5; 10 to 20 = 4; less than 10 = 2; none provided = 0
List of key personnel (Maximum points = 15) Total Score						
List of key personnel (Maximum Section weight = 30%)						

Weighted score = (score) x (30/15)						
A3	**Construction/method statements**	**20%**	**-**	-	**-**	**-**
3.1	Relevancy of method statements		10%			All seven provided = 5 ; less than seven provided = 2 ; Irrelevant or none provided = 0
3.2	Adequacy of method statements		10%			Detailed procedures for all activities = 5 ; Detailed procedures for some activities = 2; Irrelevant or none provided = 0
Construction/method statements(Stringing, erection and earthing of equipment and steelwork (Maximum points = 10) Total Score						
Construction/method statements (Stringing, erection and earthing of equipment and steelwork (Maximum Section weight = 20%) Weighted score = (score) x (20/10)						
A5	**Tools and Equipment**	**10%**	**-**	-	**-**	**-**
5.1	Adequacy of tools and equipment		10%			Detailed = 5 ; Marginal = 4 ; Deficient = 2
Tools and Equipment (Maximum points = 5) Total Score						
Tools and Equipment (Maximum Section weight = 10%) Weighted score = (score) x (10/5)						