

Title: **Mookodi– Mookodi 1st  
500MVA– Technical Tender  
Evaluation Strategy for  
Installing Control and Power  
Cables Mookodi Substation.**

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### CONTROLLED DISCLOSURE

## **1. INTRODUCTION**

This document establishes the technical evaluation strategy for the evaluation of tenders that will be received in response to the request to tenders for the work to be done Mookodi Substation. This strategy is of a high level consideration and of the key aspects that will give direction to the technical evaluation process. It is in accordance with Tender Engineering Evaluation Procedure (240-48929489)[1].

This document covers the work required for the installation of control and power cables Mookodi Substation.

## **2. SUPPORTING CLAUSE-S**

### **2.1 SCOPE**

The document covers the technical evaluation strategy for the evaluation of tenders for Mookodi – 1<sup>st</sup> 500MVA Transformer project.

The aim of this document is to provide a technical evaluation strategy that shall be used for the technical evaluation of tenders for the installation of power cables Mookodi – 1<sup>st</sup> 500MVA Transformer project. Furthermore, it will ensure transparency in the evaluation process as per the requirements set out in the Tender Evaluation Procedure (240-48929482)[1].

#### **2.1.1 Purpose**

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, 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 control and power cables at Mookodi Substation in the Central 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 Technical Evaluation Procedure
- [2] 32-1034 : Eskom Procurement and Supply Management
- [3] SANS-10198: The Selection, Handling and Installation of Power Cables not exceeding 33kV
- [4] OHS Act, 1993: Electrical Installations Regulations 2009
- [5] OSH Act, 1993: Construction Regulations, 2014
- [6] Occupational Health and Safety Act (No.85 of 1993)
- [7] ESKPVAEY6: 2005 Operating Regulations for High Voltage Systems.

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### **2.2.2 Informative**

- [8] PTM & C Cable Schedule- 240-84597622
- [9] LV Power and Control Cable with Rated Voltage Standard 600/1000V -240-56063805
- [10] SANS 10142 - The Wiring of Premises Part 1 Low Voltage Installations.
- [11] 240-56030637-General Information and Requirements for Low Voltage Cable System Standard
- [12] 240-64636794 Standard for wiring and Cable Marking in Substations

### **2.2.3 Classification**

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

## **2.3 ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
CV	Curriculum Vitae
CS	Convertor Station
EDWL	Engineering Design Work Lead
LV	Low Voltage
PTM & C	Protection, Teleprotection, Metering and Control
SANS	South African Nation Standard

## **2.4 ROLES AND RESPONSIBILITIES**

N/A as per 240-48929482: Tender Technical Evaluation Procedure

## **2.5 PROCESS FOR MONITORING**

N/A

## **2.6 RELATED/SUPPORTING DOCUMENTS**

N/A

# **3. TENDER TECHNICAL EVALAUTION STRATEGY**

## **3.1 SCOPE OF WORK**

The scope of work for this project will comprise the following activities

### **400kV Scope of Work (Transformer 14, Bus Coupler A, Trans Bus Coupler A , Bus Section &VTJB)**

- Install new Transformer protection scheme ((Transformer 14) – 6TA2300 M1,M2 &Tap change panel

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- Install new Transfer bus coupler protection scheme (Transfer Bus Coupler “A”)– 6BC2310 M1& M2 panels on the allocated space as per approved control room layout
- Install new bus coupler protection scheme (Bus Coupler “A”)– 6BC2210 M1& M2 panels on the allocated space as per approved control room layout
- Install new bus coupler protection scheme (Bus Section 2– 6BC2210 M1& M2 panels on the allocated space as per approved control room layout
- Install new cables between the existing 400kV Bus zone panel and all interfacing panels as per the approved latest cable block drawing.

### **132kV Scope of Work (Bus Coupler A, Bus Section 1)**

- Install new bus coupler protection scheme (Bus Coupler “A”)– 6BC2210 M1& M2 panels on the allocated space as per approved control room layout
- Install new bus coupler protection scheme (Bus Section 1– 6BC2210 M1& M2 panels on the allocated space as per approved control room layout
- Install new cables between the existing 132kV Bus zone panel and all interfacing panels as per the approved latest cable block drawing.
- Try to keep the ferrule numbers and cable numbers intact. Install safety labels
- Enclose cables in surface trenches again after installation and termination.

### **3.2 TECHNICAL EVALUATION THRESHOLD**

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

### **3.3 TET MEMBERS**

**Table 1: TET Members**

<b>TET number</b>	<b>TET Member Name</b>	<b>Designation</b>
TET 1	Christinah Mohloki	Senior Project Engineer
TET 2		

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### 3.4 MANADATORY TECHNICAL EVALUATION CRITERIA

	<b>Mandatory Technical Criteria Description</b>	<b>Reference to Technical Specification / Tender Returnable</b>	<b>Motivation for use of Criteria</b>
1.	Relevant company experience	SANS10198 & <a href="#">240-56030637</a>	Vital to execute the task
2.	Procedures for Cable Terminations	SANS10198 & <a href="#">240-64636794</a>	Vital to execute the task
3.	Procedure for Cable Installation	SANS10198 & <a href="#">240-56030637</a>	Vital to execute the task
4.	Procedure for Loading and Unloading Cable Drums	SANS10198 & <a href="#">240-56030637</a>	Vital to execute the task
5.	Procedures for Cable Handling and Storing	SANS 10198 & <a href="#">240-56030637</a>	Vital to execute the task
6.	Tools and equipment	SANS10198 & <a href="#">240-56030637</a>	Vital to execute the task
7.			

**3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA**

**Table 2: Removing and Installing Power and Control Cables- Qualitative Technical Evaluation Criteria**

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	Relevant company experience(Projects completed in past 5 years)		SANS10198 & 240-56030637	20	
	1.1	Number of projects	SANS10198 & 240-56030637		4
	1.2	Project Scopes and values	SANS10198 & 240-56030637		4
	1.3	C.V of qualified personnel	SANS10198 & 240-56030637		4
	1.4	Substation names and completion dates	SANS10198 & 240-56030637		4
	1.5	Client contact person and details	SANS10198 & 240-56030637		4
2.	Procedures for Cable Terminations		SANS10198 & 240-56030637	20	
	2.1	Handling of spare cores	SANS10198 & 240-56030637		8
	2.2	Ferrule numbering	SANS10198 & 240-56030637		8
	2.3	Total number of manpower dedicated to this project	SANS10198 & 240-56030637		4
3.	Procedure for Cable Installation		SANS10198 & 240-56030637	20	
	3.1	Yard stone handling	SANS10198 & 240-56030637		5
	3.2	Trench cover handling	SANS10198 & 240-56030637		5
	3.3	Cable Glanding	SANS10198 & 240-56030637		5
	3.4	Cable numbering	SANS10198 & 240-56030637		5
4.	Procedure for Loading and Unloading Cable Drums		SANS10198 & 240-56030637	15	
	4.1	Adequacy of procedure	SANS10198 & 240-56030637		15

5.	Procedures for Cable Handling and Storing		SANS10198 & 240-56030637	15	
	5.1	Adequacy of procedure	SANS10198 & 240-56030637		15
6.	Tools and equipment		SANS10198 & 240-56030637 9	10	
	6.1	Adequacy of tools and equipment. Test Certificate of crimping tools	SANS10198 & 240-56030637		10
				TOTAL: 100	

**3.6 TET MEMBER RESPONSIBILITIES**

**Table 3: TET Member Responsibilities**

<b>Mandatory Criteria Number</b>	<b>TET 1</b>	<b>TET 2</b>	<b>TET 3</b>
Relevant company experience	X	X	X
Procedures for Cable Terminations	X	X	X
Procedure for Cable Installation	X	X	X
Procedure for Loading and Unloading Cable Drums	X	X	X
Procedures for Cable Handling and Storing	X	X	X
Tools and Equipment			
<b>Qualitative Criteria Number</b>	<b>TET 1</b>	<b>TET 2</b>	<b>TET 3</b>
Relevant company experience	X	X	X
Procedures for Cable Terminations	X	X	X
Procedure for Cable Installation	X	X	X
Procedure for Loading and Unloading Cable Drums	X	X	X
Procedures for Cable Handling and Storing	X	X	X
Tools and equipment	X	X	X

**3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS**

**3.7.1 Risks**

**Table 4: Acceptable Technical Risks**

Risk	Description
1.	None

**Table 5: Unacceptable Technical Risks**

Risk	Description
1.	Contractor who do not have the relevant experience

**3.7.2 Exceptions / Conditions**

**Table 6: Acceptable Technical Exceptions / Conditions**

Risk	Description
1.	None

**Table 7: Unacceptable Technical Exceptions / Conditions**

Risk	Description
1.	None

#### 4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Nomfundo Gono	PTM & C Senior Technologist	
Mario Petersen	Planning and Support Manager (Acting)	

#### 5. REVISIONS

Date	Rev.	Compiler	Remarks
09 June 2023	1	Christinah Mohloki	First Issue

#### 6. DEVELOPMENT TEAM

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

- C Mohloki

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