Eskom	Strategy	Engineering

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Compiled by	Functional Responsibility	Authorised by
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TABLES

1. INTRODUCTION

This document sets out the method and criteria that will be used to evaluate the tenders for the project scope: Copper Earthing Cables Replacement to Aluminium Project.

2. SUPPORTING CLAUSES

2.1 SCOPE

The scope of this document is to capture the technical tender evaluation strategy for the project scope: Copper Earthing Cables Replacement Project. The scope of the project is supply, deliver, and install and conduct survey to ensure earthing protection continuity across the power station.

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 applies only to Kusile Power Station.

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] SANS 10200:2015 Neutral earthing in medium voltage industrial power systems

[4] SANS 10201:2024 Medium voltage earthing devices incorporating NECRTs, NECRs and NERs.

[5] SANS 62271-102:2023 Alternating current disconnectors and earthing switches

[6] SANS 725:2021 IEEE guide for safety in AC substation grounding

[7] SANS 1063:2020 Earth rods, couplers, and connections

2.2.2 Informative

[8] 203-334 Kusile Power Station Earthing & Lightning Protection Standard

[9] 240-56356396 Eskom Earthing & Lightning Protection Standard

[10] NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT 59 OF 2008

2.3 DEFINITIONS

Definition	Explanation
Copper conductor	Conductor used in electrical wiring.
Aluminium conductor	Is a type of high capacity, high strength stranded conductor.
Earthing	A process in which the instantaneous discharge of electrical energy takes place by transferring charges directly to the earth through low resistance wire. Low resistance earthing wire is chosen to provide the least resistance path for leakage of fault currents.
Earth mat	A mash formed with bare metallic conductors and buried in shallow soil to provide safety from touch and step potential. Earth mats are part of the grounding methods implemented in substations.

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Explanation
AC	Alternating Current
CoC	Certificate of Compliance
C&I	Control and Instrumentation
DC	Direct Current
EMI	Electro-Magnetic Interference
ISO	International Organization for Standards
ITP	Inspection and Test Plan
m	Meters
mm	Mili-meters
N/A	Not Application
OEM	Original Equipment Manufacturer
QC	Quality Checks
QCP	Quality Control Plant
SOW	Scope of Work

2.5 ROLES AND RESPONSIBILITIES

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

2.6 PROCESS FOR MONITORING

Any changes to this document will be performed as per Project Engineering Change Management Procedure (240-53114026).

2.7 RELATED/SUPPORTING DOCUMENTS

Any changes to this document will be performed as per Project Engineering Change Management Procedure (240-53114026).

3. TENDER TECHNCIAL EVALAUTION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

To be eligible for evaluation, the tenderer shall meet all the mandatory requirements. The evaluation of tenders will be based on the tenderer's ability to meet the requirements specified in the Scope of Work – Kusile Power Station Copper Earthing Wire Replacement SOW. A weighted score card approach will be used to evaluate the technical compliance of the tenders against the Employer's requirements. Tenderers need to have a weighted score of 80% overall or more to technically qualify for further evaluation.

The evaluation scores will be weighted as follows according to disciplines:

Table 1 - Evaluation Weighting

Technical (100%)	
Comprehension of scope	30%
Quality Control Plans for the Project	10%
Organogram & Staffing	20%
Experience of key project staff	30%
Technical Submissions	10%
TOTAL (100%)	
Overall minimum threshold for qualification (80%)	

3.2 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 80%.

3.3 TET MEMBERS

Table 2: TET Members

TET number	TET Member Name	Designation
TET 1: Electrical Engineering	Vely Sondezi	Electrical Engineer
TET 2: Electrical Maintenance	Buti Makunyane	Electrical Senior Technician
TET 3: Project Management	Refilwe Mosadi	Project Manager

3.4 MANADATORY TECHNICAL EVALUATION CRITERIA

Table 3: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Meet (YES/NO)	Motivation and Comments
1.	Accreditation by the ECA or ECB; DOL registration as Electrical contractor for ALL electrical installations.		
2.	History of similar scope execution confirmation		

3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 4: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (0,2,4,5)	
				100%		
1.	**Professional Services Scope**					
	1.1	**Comprehension of scope** 1.1.1. The tenderer to submit typical construction/installation method statements for the project scope: a) The Method Statements shall clearly provide details of installation approach to be adopted for the project works. b) The method statements shall clearly indicate a quality assurance process/approach to be undertaken throughout the project activities. c) The methodology shall include: • Removal, Disposal, storing and scraping of copper earthing cables and bars. • Installation of Aluminium cables and Bars. • Installation of insulated anti-theft cables.	Removal and Installation Method Statement	30%		0 = No Submission 2 = Methodology not detailing enough above the Scope of Work to be executed. 5 = Delivery, Removal and installation methodology described in detail showing full understanding of the Scope of Work.
		1.1.2. Quality Control Plans for the Project a) Signed QCPs from previous similar Scopes. b) QCP for submitted Scope of this project.	Quality Control Plans	10%		0 = No Submission 2 = No signed QCP but submitted 5 = Signed QCP but a new QCP for this project.

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (0,2,4,5)	
	1.2	**Organogram & Staffing** The Tenderer to submit the organisational structure of key personnel of the main Contractor and his Subcontractors: ▪ In case of an association/joint venture/consortium, it should be indicated how the duties and responsibilities are to be shared. If the tenderer intends on making use of the services of a Subcontractor/s for sections of the scope, the delegation of duties and responsibilities should be clearly indicated. The minimum required key resources shall include the following: ▪ Electrical Engineer/ Technologist – professionally registered with ECSA. ▪ Supervisors (2) ▪ Master Installation Electrician (1) ***The tenderer notes the following: An organogram is only considered valid if a CV is provided for all resources.***	Project organogram	20%		0 = No Submissions 2 = Only one (1) key Resources Submitted 4 = Submitted but missing one (1) key resource. 5 = All Key resources submitted
	1.3	**Experience of key project staff** The tenderer also demonstrates that each of the key project resources have a minimum of two (2) years working experience in related projects or projects of similar scope. a. The minimum required key resources shall include the following: i. Electrical Engineer/Technologist - Professionally registered with ECSA. ii. Electrical Technicians Supervisors iii. Master Installation Electrician *Notes:* *Qualifications shall entail the following documents as a minimum:* *a. Certified copy of ID document.*	• CVs of key resources – tenderer demonstrates level of related design and Lighting installation. • Relevant qualifications of key resources • Professional registration certificates of Engineers	30%		5 = CV's, relevant qualifications, and professional registration certificates of all 3 key resources submitted. Project resources have vast design and construction experience in related projects. Work experience in related fields is 2 years and more. 2 = CV's, relevant qualifications, and certificates of 1 – 2 resources submitted. Project resources have sufficient – vast design and construction experience in related projects. Work experience in related fields is 2 years and more. 0 = No submissions

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (0,2,4,5)	
		b. Certified copies of Accreditation documents *c. Official PO and Contract confirmations for similar scope.* *Note: A response of "NO" to any of the Mandatory Evaluation Criteria would result to disqualification of the tenderer.*				
	1.4	Technical Submissions a) Technical datasheets for the Aluminium cable offered. b) Technical datasheets for insulated anti-theft cables offer. c) Technical datasheets for the Aluminium bar. d) Warranty Certificates	• Datasheets all types of cables to be installed. • Installation Warranty	10%		0= No Submission of either two 4 = Submission of either of the two. 5 = For both submissions
			TOTAL:	100%		
			QUALIFYING SCORE		**80%**	

3.6 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
1	X	X	X
2	X	X	X
Qualitative Criteria Number	**TET 1**	**TET 2**	
1.1	X	X	X
1.2	X	X	X
1.3	X	X	X
1.4	X	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.	▪ Installation of cables that are not certified by any National or International Standards (e.g., SABS, SANS, IEC, ANSI, NEMA, IEEE etc.) ▪ No Datasheets for installations ▪ Cables and bars Datasheets not approved by SANS

3.7.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	**None**

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	• Total Deviation from the Scope of work • Any installation without SABS or SANS standard approval

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Mohapi Mphirime	Electrical Engineering Manager
Refilwe Mosadi	Project manager
Dineo Mdluli	Project Co-Ordinator

5. REVISIONS

Date	Rev.	Compiler	Remarks
November 2024	1	VA Sondezi	First Issue

6. DEVELOPMENT TEAM

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

- Collin Lepee
- Buti Makunyane

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- Gomotso Phokojoe
- George Mbangula
- Collin Lepee