

Title: **Technical Evaluation Strategy –
Igesi Makalu Specialised
Geotechnical Assessment of
Undermined Land**

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1. INTRODUCTION

In March 2023, the *Employer* was made aware that a portion of the Igesi Makalu 1 275kV / Lethabo Igesi 1 275kV proposed line parallel routes had been subject to historical undermining. The undermining had occurred approximately 35 years ago and had resulted in localised areas of subsidence in the area. Approximately of 1.2km of powerline i.e., 8 proposed tower positions are impacted.

The *Employer* requires the services of a Professionally Registered Rock Engineer to:

1. assess the undermined area within the area of influence of the proposed infrastructure;
2. verify the undermining information received and;
3. propose and detail ground remediation methods for the undermined land or recommend alternate infrastructure positions (as needed).

2. SUPPORTING CLAUSES

2.1 SCOPE

The Scope of Works is outlined in document LES 1787.

The Successful tenderer (*Contractor*) provides all equipment and resources required to execute the *Works*.

2.1.1 Purpose

This document outlines the criteria that will be used to evaluate the tenderers that will result from the Request for Proposal. This technical evaluation strategy defines the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and Technical Evaluation Team (TET) member responsibilities for tender technical evaluation. The technical evaluation strategy serves as a basis for the tender technical evaluation process.

2.1.2 Applicability

This document applies to the Transmission Division, for the Igesi Makalu 275kV Specialised Geotechnical Assessment of Undermined Land.

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] 32-1034 Eskom Procurement Policy
- [4] LES 1787: Igesi Makalu: Scope of Works for Specialised Geotechnical Assessment of Undermined Land

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2.2.2 Informative

[5] 240-53113685: Design Review Procedure

[5] 240-53114026: Project Engineering Change Management Procedure

2.3 DEFINITIONS

Definition	Description
Tender	A tender refers to an open or closed competitive request for quotations/ prices against a clearly defined scope/ specification.
Contractor/Tenderer	Refers to the corporation appointed to perform the engineering, procurement, and construction works required for the project.
Employer	Refers to Eskom Holdings State Owned Company
Client	The end user will be Eskom who will be represented by the Tx Northern Cape Grid throughout the duration of the Project.

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
LES	Lines Engineering Services
TET	Technical Evaluation Team
SAIMM	South African I Institute of Mining and Metallurgy
SANIRE	South African National Institute for Rock Engineering

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

None

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3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION METHOD

The basic steps for a technical evaluation must be followed as per the Tender Technical Evaluation Procedure [1].

A two stage Technical Evaluation Strategy is set out.

Stage 1: Mandatory Technical Evaluation Criteria (gatekeepers) are 'must meet' criteria. These criteria are not weighted or point scored but; are assessed on a Yes/No basis to ascertain whether or not the criteria are met. An assessment of 'No' against any mandatory criterion will disqualify the tenderer and the tenderer will not be evaluated against Qualitative Criteria.

Stage 2: Qualitative Technical Evaluation Criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer. The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion.

The technical criteria and weighting is broken down as follows:

- a) Civil Engineering: 100%

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

The evaluation of the tender submission will be based on the tenderer's ability to meet the Engineering requirements.

The scoring method will be as follows:

SCORE	PERCENTAGE	DESCRIPTION
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

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The evaluation scores will be weighted as follows:

Engineering (100%)	
Civil Engineering	100%
TOTAL (100%)	
Overall minimum threshold for qualification (70%)	

3.2 TECHNICAL EVALUATION THRESHOLD

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

A weighted score-card approach is used to evaluate the technical compliance of the tenders against the technical specifications (as outlined within the scope of works). Tenderers need to have a weighted score of 70% overall or more to technically qualify for further evaluation.

The evaluation strategy for Safety, Health and Environmental as well as Quality is not included in this document as it does not form part of the Engineering scope.

The evaluation of the tender submission will be based on the tenderer's ability to meet the Engineering and Planning requirements.

3.3 TET MEMBERS

The full time core technical evaluation team will consist of the following team members (in-line with the Tender Engineering Evaluation Procedure, 240-48929482) in Table 1.

Table 1: Core TET Members

TET number	TET Member Name	Designation
TET 1	Alicia Simbudayal	Senior Engineering Geologist
TET 2	Kabelo Molaodi	Senior Civil Engineer
TET 3	Gino Pillay	Civil Engineer

The part time/support team member shall be required to fill in a technical evaluation form, if their names are marked as mandatory (X), next to a criterion. The part time/ support team member may not be required to fill in a technical evaluation form, if their names are marked as optional (O) next to a criterion, but shall assist the main members where necessary. These members may be as follows in Table 2.

Table 2: Optional TET Members

TET number	TET Member Name	Designation
TET 4	Dan Dukhan	Chief Civil Engineer
TET 5	Siyabonga Dubazana	Chief Civil Engineer

The core members' and the optional members' responsibilities are described in Table 7.

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3.4 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 3: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification/ Tender Returnable	Motivation for use of Criteria
1.	Contractor must display relevant experience in assessment and risk mitigation of ground subsidence caused by undermining for Eskom Transmissions powerlines. Contractor supplies the following: 1. CV indicating: a. experience in Surface and Underground Mining of Coal/Ore b. experience in assessment of surface subsidence as result of undermining for Eskom Transmission Powerlines 2. Traceable references for works	LES 1787: Igesi Makalu: Scope of Works for Specialised Geotechnical Assessment of Undermined Land	Capability Constraint
2.	Contractor must have required valid technical qualifications Contractor supplies the following (as a minimum): 1. Member of SANIRE (South African National Institute for Rock Engineering) 2. Chamber of Mines Certificate in Rock Mechanics/Engineering which includes Surface and Underground Mining	LES 1787: Igesi Makalu: Scope of Works for Specialised Geotechnical Assessment of Undermined Land	Capability Constraint

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3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA

During the tender evaluations, Table 4 will be used by the TET members to score each criterion on a scale of 0 to 5.

Table 4: Qualitative Technical Evaluation Criteria

SCORE	PERCENTAGE	DESCRIPTION
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.

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Table 5: Qualitative Technical Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1. Civil Engineering Criteria: Overall Weighted Score Breakdown = 100%					
1.1	Civil Engineering Criteria: Geotechnical Criteria				
	1.1.1	Technical proposal for the works as described in the Scope of Works. Technical proposal indicates Scope to be undertaken, compliance with relevant standards and guidelines, methodology, proposed additional studies (if required).	LES 1787: Igesi Makalu: Scope of Works for Specialised Geotechnical Assessment of Undermined Land		30
	1.1.2	Contractor must display relevant experience in assessment and risk mitigation of ground subsidence caused by undermining for Eskom Transmissions powerlines (At least 1 successfully completed project last 10 to 20 years for minimum scoring).	Appendix A: Item 1/ Item2/ Item 3/ Item 4		35
	1.1.3	Contractor must have required valid technical qualifications: 1. Required - Member of SANIRE (South African National Institute for Rock Engineering) a. Preferable - Member of good standing with SAIMM (South African I Institute of Mining and Metallurgy) 2. Required - Chamber of Mines Certificate in Rock Mechanics/Engineering which includes Surface and Underground Mining	Appendix A: Item 2/ Item 3		35

3.5.1 Qualitative Technical Criteria- Scoring Range

Table 6 below describes how the tenders will be evaluated and scored in terms of the scoring rang of 0, 2, 4 and 5.

Table 6: Scoring Range for Qualitative Technical Criteria

Civil Engineering				
Criteria No	Qualitative Technical Criteria Description	Criteria Sub Weighting (%)	Range	Score
1.1.1	Technical proposal for the works as described in the Scope of Works. Technical proposal indicates Scope to be undertaken, compliance with relevant standards and guidelines, methodology, proposed additional studies (if required).	30	No technical proposal submitted	0
			Technical proposal does not contain methodology of approach OR Technical proposal reiterates scope of works	2
			Technical proposal describes role of key personnel and includes minor details on approach of fieldworks and investigations	4
			Technical proposal details fully how scope will be met and provides comprehensive methodology of approach	5
1.1.2	Contractor must display relevant experience in assessment and risk mitigation of ground subsidence caused by undermining for Eskom Transmissions powerlines (At least 1 successfully completed project last 10 to 20 years for minimum scoring).	35	Projects completed >20 years ago	0
			Completed 1 or more project within 10 to 20 years	2
			Completed 1 or more project within last 7 to 10 years	4
			Completed 1 or more projects within last 5 to 7 years	5
1.1.3	Contractor must have required valid technical qualifications 1. Required - Member of SANIRE (South African National Institute for Rock Engineering)	35	SANIRE Qualification with < 2 years of experience	0
			SANIRE Qualification with 2 to 5 years of experience	2
			SANIRE Qualification with > 5 to 10 years of experience	4

	a. Preferable - Member of good standing with SAIMM (South African Institute of Mining and Metallurgy) 2. Required - Chamber of Mines Certificate in Rock Mechanics/Engineering which includes Surface and Underground Mining		SANIRE Qualification with > 10 years of experience	5
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3.6 TET MEMBER RESPONSIBILITIES

Key: X = Mandatory; O = Optional

Table 7: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4 (O)	TET 5 (O)
1	X	X	X	X	X
2	X	X	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4 (O)	TET 5 (O)
1.1.1	X	X	X	X	X
1.1.2	X	X	X	X	X
1.1.3	X	X	X	X	X

3.7 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.7.1 Risks

Table 8: Acceptable Technical Risks

Risk	Description
1.	N/A

Table 9: Unacceptable Technical Risks

Risk	Description
1.	Tenderers technical submission does not address entire scope required
2.	Tenderer does not meet mandatory requirements
3.	Tenderer does not have valid technical qualifications

3.7.2 Exceptions / Conditions

Table 10: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	N/A

Table 11: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Tenderers technical submission does not address entire scope required

Risk	Description
2.	N/A

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Alicia Simbudayal	Senior Engineering Geologist: LES Structures, Civils & Mechanical PrSciNat
Dan Dukhan	Chief Civil Engineer: LES Structures, Civils & Mechanical Pr Eng
Sibonelo Nzama	Cluster Manager: LES Structures, Civils & Mechanical Pr Eng

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5. REVISIONS

Date	Rev.	Compiler	Remarks
06/2023	0.1	A Simbudayal	Draft document for review
06/2023	1.0	A Simbudayal	Final document for signature

6. DEVELOPMENT TEAM

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

- Alicia Simbudayal: Senior Engineering Geologist: LES Structures, Civils & Mechanical PrSciNat
- Dan Dukhan: Chief Civil Engineer: LES Structures, Civils & Mechanical Pr Eng

7. ACKNOWLEDGEMENTS

- N/A

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8. APPENDIX A: LIST OF TENDER TECHNICAL RETURNABLES

Table 12: List of Tender Technical Returnables

Item	Title	Details
1	Technical Proposal	Item identifies approach to the requested scope of works and assists in evaluating the method which will be applied by the professional individual to assess and report on the scope of works.
2	CV & qualifications of key personnel	Item identifies relevant qualification and experience profile to demonstrate level of experience of resource
3	Relevant experience	Item identifies tenderers familiarity with items outlined within required scope of works in practical application.
4	List of Relevant Experience	Items identifies list of verifiable relevant references. This includes as a minimum Project Name, Brief Project Description, Valid contact details.

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