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Strategy for Apollo Croydon
1 275kV R21_Sinkhole
Rehabilitation of Cluster A and
stormwater management
implementations**

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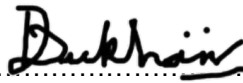
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1. INTRODUCTION

On October 2021, the National Transmission Company South Africa (NTCSA) Central Transmission Grid received notice of sinkholes present along the portion Apollo Croydon 1 275kV powerline servitude from the Council for Geoscience (CGS). The portion of the powerline servitude affected was identified as the portion running perpendicular to the R21 roadway. The area contains one (1) NTCSA transmission (Tx) structure and two (2) Eskom distribution (Dx) structures.

A Dolomite Stability Investigation (DSI) was conducted in mid to late 2022 and the area was classified as D3 and D4 Dolomite Land. The assessment further classified the area in four (4) clusters.

In April 2024, due to rain events and water ingress (including water ingress by adjacent stakeholder infrastructure), one of the Eskom Dx structures (Esselen – Eerstefabrieke pole 47) experienced a partial failure when the footings sank into an existing sinkhole which had expanded from water ingress. This indication of further sub-surface deterioration of the area led to the temporary back-staying (safety measure) being conducted for the NTCSA Tx structure i.e., Apollo Croydon 1 275kV T17. The permanent solution is the sinkhole rehabilitation of the Cluster A area (i.e., sinkholes closest to the power line infrastructure) and stormwater management implementations for the servitude area.

This technical evaluation strategy (TES) outlines the criteria by which tender submissions will be evaluated for the sinkhole rehabilitation of Cluster A and the associated stormwater management implementations for the servitude area (as outlined in document LES 1770).

2. SUPPORTING CLAUSES

2.1 SCOPE

The Scope of Works is outlined in document LES 1770.

The Successful tenderer (*Contractor*) provides all specialisations, materials, equipment and resources required to execute the *Works* as outlined in LES 1770.

2.1.1 Purpose

This document provides the criteria that will be used to evaluate the tenderers that will result from the Request for Proposal (RFP). This technical evaluation strategy defines the technical Mandatory Evaluation Criteria, technical 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 NTCSA Central Transmission Grid for the *Apollo Croydon 1 275kV T17 R21: Sinkhole Rehabilitation for Cluster A and stormwater management implementations*.

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

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- [2] ISO 9001 Quality Management Systems
- [3] 32-1034 Eskom Procurement Policy
- [4] LES 1770: Apollo Croydon 1 275kV T17 R21: Sinkhole Rehabilitation for Cluster A and stormwater management implementations

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
CGS	Council for Geoscience
Dx	Distribution
ECSA	Engineering Council of South Africa
LES	Corporate Social Investment & Responsibility
NTCSA	National Transmission Company South Africa
RFP	Request for Proposal
TES	Technical Evaluation Strategy
TET	Technical Evaluation Team
Tx	Transmission
SACNASP	South African Council for Natural Scientific Professions

2.5 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

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2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

None

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 <ul style="list-style-type: none">Meet technical requirement(s) AND;No foreseen technical risk(s) in meeting technical requirements.
4	80	COMPLIANT WITH ASSOCIATED QUALIFICATIONS <ul style="list-style-type: none">Meet technical requirement(s) with;Acceptable technical risk(s) AND/OR;Acceptable exceptions AND/OR;Acceptable conditions.
2	40	NON-COMPLIANT <ul style="list-style-type: none">Does not meet technical requirement(s) AND/OR;

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		Unacceptable technical risk(s) AND/OR; <ul style="list-style-type: none"> Unacceptable exceptions AND/OR; Unacceptable conditions.
0	0	TOTALLY DEFICIENT OR NON-RESPONSIVE

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 (LES)
TET 2	Redz Pillay	Senior Civil Engineer (DX, NED)
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.

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Table 2: Optional TET Members

TET number	TET Member Name	Designation
TET 4	Dan Dukhan	Chief Civil Engineer, LES
TET 5	Kabelo Molaodi	Chief Civil Engineer, LES
TET 6	Winnie Mokoena	Civil Engineer, LES

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 displays experience in sinkhole rehabilitation (including by inverted filter method) Contractor supplies: 1. Experience profile with highlighted capability and experience <u>of company</u> (not individual personnel experience) 2. Traceable references for sinkhole rehabilitation works	LES 1770: Apollo Croydon 1 275kV T17 R21: Sinkhole Rehabilitation for Cluster A and stormwater management implementations	Capability Constraint
2.	Contractor supplies CV's and Qualifications of key personnel: 1. CV's of key technical personnel a. CV of Level 3 Dolomite Specialist b. CV of Civil Engineer Pr Eng 2. <u>Valid</u> PR certificates and qualifications of key personnel	LES 1770: Apollo Croydon 1 275kV T17 R21: Sinkhole Rehabilitation for Cluster A and stormwater management implementations.	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 <ul style="list-style-type: none">• Meet technical requirement(s) AND;• No foreseen technical risk(s) in meeting technical requirements.
4	80	COMPLIANT WITH ASSOCIATED QUALIFICATIONS <ul style="list-style-type: none">• Meet technical requirement(s) with;• Acceptable technical risk(s) AND/OR;• Acceptable exceptions AND/OR• Acceptable conditions.
2	40	NON-COMPLIANT <ul style="list-style-type: none">• 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 1770: Apollo Croydon 1 275kV T17 R21: Sinkhole Rehabilitation for Cluster A and stormwater management implementations.		20
	1.1.2	Contractor must display relevant experience in sinkhole rehabilitation (including inverted filter method) (At least 1 successfully completed sinkhole rehabilitation within the last 3 years for minimum scoring). <u><i>This item is the company experience not the experience of the personnel.</i></u>	Appendix A: Item 1/ Item2/ Item 3/ Item 4		30
	1.1.3	Contractors Level 3 Dolomitic Specialist: <ul style="list-style-type: none">• Pr.Sci.Nat with SACNASP• minimum 10 years' post professional registration experience• minimum of 7 years in assessing and rehabilitation on dolomite land (CV, Valid PR certificate, qualifications). <u><i>All 3 items above to be met.</i></u>	Appendix A: Item 2/ Item 3		30
	1.1.4	Contractors Civil Engineer: <ul style="list-style-type: none">• PrEng with ECSA• minimum 10 years' post professional registration experience• minimum of 5 years' experience is stormwater management designs for dolomite land (CV, Valid PR certificate, Qualifications). <u><i>All 3 items above to be met.</i></u>	Appendix A: Item3/Item 4		20

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 range 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).	20	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 sinkhole rehabilitation (including inverted filter method) (At least 1 successfully completed sinkhole rehabilitation within the last 3 years for minimum scoring). <u><i>This item is the company experience not the experience of the personnel.</i></u>	30	No previous project experience	0
			Completed 1 successful sinkhole rehabilitation project within last 3 years	2
			Completed 2 - 3 successful sinkhole rehabilitation projects within last 3 years	4
			Completed 4 - 5 or more successful sinkhole rehabilitation projects within last 3 years	5
1.1.3	Contractors Level 3 Dolomitic Specialist: <ul style="list-style-type: none"> Pr.Sci.Nat with SACNASP minimum 10 years' post professional registration experience minimum of 7 years in assessing and rehabilitation on dolomite land (CV, Valid PR certificate, Qualifications). <u><i>All 3 items above to be met.</i></u>	30	No resource	0
			Level 3 Dolomitic Specialist with relevant experience	5

Criteria No	Qualitative Technical Criteria Description	Criteria Sub Weighting (%)	Range	Score
1.1.4	Contractors Civil Engineer: <ul style="list-style-type: none"> • PrEng with ECSA • minimum 10 years' post professional registration experience • minimum of 5 years' experience in stormwater management designs for dolomite land (CV, Valid PR certificate, Qualifications) <u>All 3 items above to be met.</u>	20	No experience in stormwater management designs for dolomite land	0
			Contractors Civil Engineer has minimum 5 years' experience in stormwater management designs for dolomite land	5

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)	TET 6 (O)
1	X	X	X	X	X	X
2	X	X	X	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4 (O)	TET 5 (O)	TET 6 (O)
1.1.1	X	X	X	X	X	X
1.1.2	X	X	X	X	X	X
1.1.3	X	X	X	X	X	X
1.1.4	X	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 is not a competent persons as per SANS 1936 (2012)

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
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5. REVISIONS

Date	Rev.	Compiler	Remarks
12/2024	2.0	A Simbudayal	Document updated for alignment to updated scope of works
06/2023	1.0	A Simbudayal	Final document for signature
06/2023	0.1	A Simbudayal	Draft document for review

6. DEVELOPMENT TEAM

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

- Alicia Simbudayal

7. ACKNOWLEDGEMENTS

- Sibonelo Nzama
- Dan Dukhan
- Kabelo Molaodi
- Gino Pillay
- Redz Pillay
- Mbali Nyalunga
- Sibongile Masemola

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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 all required and specialised resources.
3	Relevant experience	Item identifies tenderers familiarity and previous experience with items outlined within required scope of works in practical application.
4	List of Relevant Experience	Items identifies list of verifiable <u>relevant references</u> . This includes as a minimum Project Name, Brief Project Description, Valid contact details.

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