

Title: Geordedale Refurbishment (132kV Yard) – Technical Tender Evaluation Strategy for the Stringing, Earthing and Erection at Geordedale substation

Unique Identifier: **EGEO12P02-SE-D86B**

Alternative Reference Number: **N/A**

Area of Applicability: **Engineering**

Documentation Type: **Strategy**

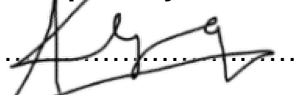
Revision: **1**

Total Pages: **13**

Next Review Date: **N/A**

Disclosure Classification: **CONTROLLED DISCLOSURE**

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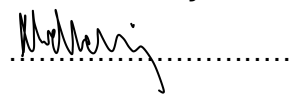
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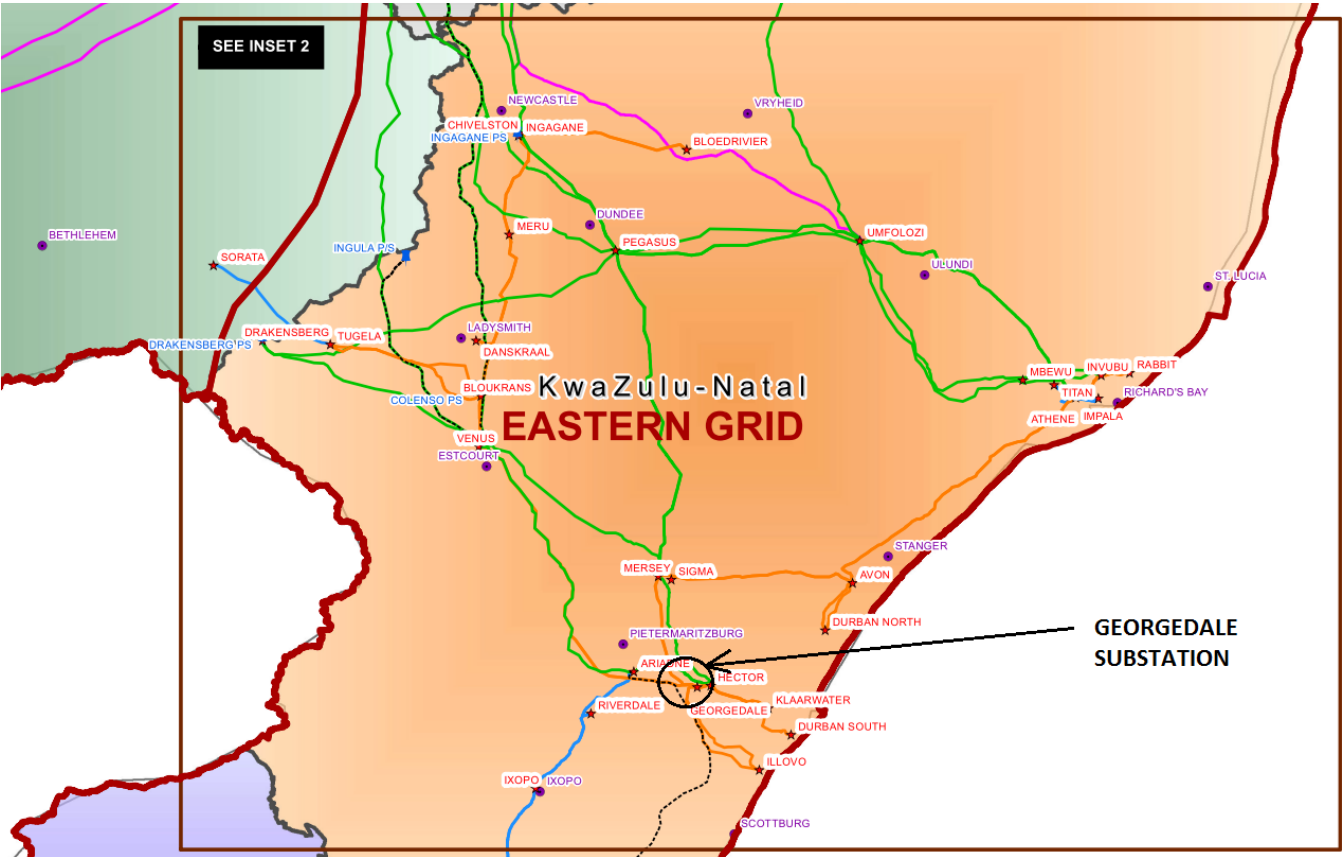


Figure 1: Geographical Location

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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 Georgedale Substation. This strategy is a high level consideration of the key aspects that will give direction to the technical evaluation process. It is important to note that all items discussed within this document are unreservedly subject to the provisions contained within [2]. It is in accordance with the Tender Engineering Evaluation Procedure (240-48929482) [1].

This document covers the work required for the stringing, earthing and erection at Georgedale substation.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document covers the technical evaluation strategy for the evaluation of the tenders for Georgedale Refurbishment (132kV Yard).

The aim of this document is to provide a technical evaluation strategy that shall be used for the technical evaluation of the tenders for Georgedale 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 list of technical returnables, 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 Georgedale Refurbishment (132kV Yard) at Georgedale Substation in the North Eastern 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] 240-82736997: Stringing, Cabling, Earthing and Erection Specification for Substations
- [4] 0.54/393: Transmission Substation Earthing Standard
- [5] TST41-877: Transmission Substation Design Earthing Standard
- [6] SANS 1200: Standard Specification for Civil Engineering Construction

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- [7] OHS Act, 1993: Construction Regulations, 2014
- [8] 240-101940513: Substation Earth Electrode Resistance Measurement
- [9] TST 41-642: Continuity Measurement of Transmission Substation on Earthmat System

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

CV	Curriculum Vitae
EDWL	Engineering Design Work Lead
LDE	Lead Discipline Engineer
N/A	Not Applicable
OHSA	Occupational Health and Safety Act
ORHVS	Occupational Regulations for High Voltage Systems
SANS	South African National Standards
TET	Technical Evaluation Team
TST	Transmission Standard
TBA	To Be Announced

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.

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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

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

N/A

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 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 for further evaluation is 70%. The team will perform risk analysis on tenders falling below the 70% threshold to substantiate the result and to authenticate the credibility of the evaluation process and results.

Table 2: Evaluation Scoring Table

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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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.

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3.2 TET MEMBERS

The following is the preliminary list of the TET members, provided that there are no conflicts of interest as per the relevant Eskom Ethics policy during the actual time of evaluation. The below is subject to the provisions stipulated in [2]. Due to the aforementioned, the below list is therefore subject to change.

Table 3: TET Members

TET number	TET Member Name	Designation
TET 1	A Le Grange	Senior Technologist
TET 2	S Zulu	Project Design Lead Chief Engineer
TET 3	TBA	Technician, Technologist or Engineer (or any senior as above)
TET 4	TBA	Technician, Technologist or Engineer (or any senior as above)
TET 5	S Maharaj	Senior Manager Substation Engineering

3.3 TECHNICAL RETURNABLES

The following documents shall be submitted when tendering:

- 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.
- 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.
- List of all tools and equipment to be used.
- Test and measurements methods (procedures) for the various tests and measurements stated in this specification:
 - Earth resistance measurements.
 - Earth continuity measurements.
 - Insulation testing.
- Erection method statements (including detailed step-by-step procedures) for the following:
 - Stringing and termination of conductors.
 - Stringing and termination of earth-wire.
 - Installation of HV equipment.
 - Earthing.
 - Brazing of earth connections.
 - Crimping.
- Procedure for compression of clamps.

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The following documents shall be submitted **upon** tender award, prior to starting with construction:

- a) Proof of training of supervisor as responsible person in accordance with Eskom ORHVS. Copy of ORHVS certificate shall be attached.
- b) Proof of qualification of rigger.
- c) Proof of qualification of operator of machinery.
- d) Calibration certificates of applicable tools and equipment.
- e) Test certificates of lifting equipment.

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3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA (A)

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: Stringing, Earthing and Erection 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 240-82736997, section 3.5, page 17	30	
	1.1	Number of projects	As per 240-82736997, section 3.5, page 17		6
	1.2	Project scope	As per 240-82736997, section 3.5, page 17		6
	1.3	Project value	As per 240-82736997, section 3.5, page 17		6
	1.4	Substation name and completion date	As per 240-82736997, section 3.5, page 17		6
	1.5	Client contact person and details	As per 240-82736997, section 3.5, page 17		6
A2	Qualifications and experience of key personnel		As per 240-82736997, section 3.5, page 17	20	
	2.1	Academic qualifications	As per 240-82736997, section 3.5, page 17		7

	2.2	Project-specific work experience	As per 240-82736997, section 3.5, page 17		7
	2.3	Total number of manpower to be dedicated to this project	As per 240-82736997, section 3.5, page 17		6
A3	Construction/method statements		As per 240-82736997, section 3.5, page 17	20	
	3.1	Relevancy of method statements	As per 240-82736997, section 3.5, page 18		10
	3.2	Adequacy of method statements	As per 240-82736997, section 3.5, page 18		10
A4	Test Procedures		As per 240-82736997, section 3.5, page 18	10	
	4.1	Procedures relevant/ comprehensive	As per 240-82736997, section 3.5, page 18		10
A5	Tools and Equipment		As per 240-82736997, section 3.5, page 17	10	
	5.1	Adequacy of tools and equipment	As per 240-82736997, section 3.5, page 17		10
A6	Procedure for compression of clamps		As per 240-82736997, section 3.5, page 18	10	
	6.1	Procedures relevant/ comprehensive	As per 240-82736997, section 3.5, page 18		10
				TOTAL: 100	

3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Qualitative Criteria (B) Number	TET 1	TET 2
A3.1	X	X
A3.2	X	X
A3.3	X	X
A3.4	X	X

The above is subject to the provisions stipulated in [2] and therefore subject to change.

Foreseen Acceptable / Unacceptable Qualifications

3.5.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	None.

Table 7: Unacceptable Technical Risks

Risk	Description
1.	Non - compliance to list of technical returnable.
2.	Contractors who do not have the relevant experience.

3.5.2 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:

S Zulu	Substation Engineering, Chief Engineer (Northern & Central Grid)
S Maharaj	Substation Engineering, Senior Manager

5. REVISIONS

May 2021	1	A Le Grange	First issue

6. DEVELOPMENT TEAM

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

- None

7. ACKNOWLEDGEMENTS

I would like to thank all whom have provided an input into this document.

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