	Strategy	Engineering
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Title: Technical Tender Evaluation Strategy for the Installation of Tubular Aluminium Conductors at Pembroke Substation

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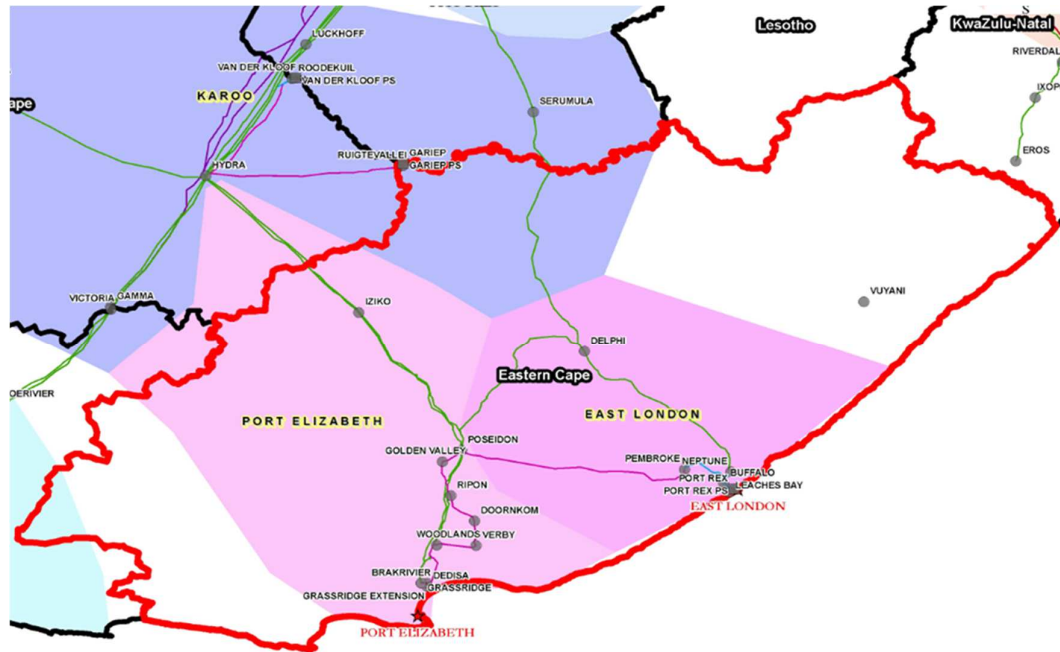


Figure 1: Geographical Location

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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 Pembroke Substation. This strategy is a high level consideration of the key aspects that will give direction to the technical evaluation process. It is in accordance with the Tender Engineering Evaluation Procedure (240-48929482) [1].

This document covers the work required for the installation of tubular aluminium conductors at Pembroke Substation.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document covers the technical evaluation strategy for the evaluation of the tenders for Pembroke Substation.

The aim of this document is to provide a technical evaluation strategy that shall be used for the technical evaluation of the tenders for the installation of tubular aluminium conductors at Pembroke 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 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 tubular aluminium conductors at Pembroke Substation in the Southern Grid of the Eskom Transmission.

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] 240-89926574 – Specification for the installation of tubular aluminium conductors
- [4] OHS Act, 1993: Electrical Installation Regulations, 2009
- [5] OHS 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

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

Abbreviation	Description
CV	Curriculum Vitae
EDWL	Engineering Design Work Lead
HV	High Voltage
LDE	Lead Discipline Engineer
MVA	Mega Volt Ampere
ORHVS	Occupational Regulations for High Voltage Systems
TET	Technical Evaluation Team

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.

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

All works to be rendered shall be in accordance with [3] , and shall be evaluated against the criteria stipulated in this document.

2.7 RELATED/SUPPORTING DOCUMENTS

This document must be applied together with [3].

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3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 SCOPE OF WORK

The high level scope of work under this project will comprise the following activities:

1. Cutting the supplied tubular aluminium conductor to lengths specified on the 400kV Tubular Busbar Layout drawing no. Pem13P01-SE-E9.
2. Installing damping conductors in the cut tubular conductors.
3. Affixing the colour coded end caps to the cut tubular conductors.
4. Mounting the tubular conductor on to the erected busbar post insulators and affixing them to the post insulators using the supplied tubular clamps.

The above listed activities will be performed on the newly established 400kV yard of the substation. All works under this project will be executed in accordance with the drawings Pem13P01-E9, specifications, standards, and equipment and accessories outlines that will be supplied to the appointed contractor.

3.2 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 technically acceptable is 70%.

Table 2: Evaluation Scoring Table

Score	Percentage	Definition
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. 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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3.3 TET MEMBERS

Table 3: TET Members

TET number	TET Member Name	Designation
TET 1	Trevino Moonsamy	Substation Engineer (Electrical)
TET 2	Percy Seboco	Chief Technologist (Electrical)

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3.4 TECHNICAL RETURNABLES

The following documents shall be submitted when tendering:

- a) 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.
- b) 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.
- c) List of all tools and equipment to be used.
- d) Erection method statements (including detailed step-by-step procedures) for the following:
 - I. Erection of post insulators
 - II. Handling and transportation of tubes from storage to HV yard
 - III. Cutting and trimming of tubes to specified sizes
 - IV. Lifting and installation of tubular conductors
 - V. Installation of end-caps
 - VI. Installation and termination of damping conductors
 - VII. Installation of clamps

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) Calibration certificates of applicable tools and equipment
- c) Test certificates of lifting equipment
- d) Proof of qualification of rigger
- e) Proof of qualification of operator of machinery
- f) Quality, inspection and test plans (QITP)

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3.5 QUALITATIVE TECHNICAL EVALUATION CRITERIA (B)

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: Installation of tubular aluminium conductors - 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 240-89926574, section 8, page 9	30	
	1.1	Number of projects	As per 240-89926574, section 8, page 9		6
	1.2	Project scope	As per 240-89926574, section 8, page 9		6
	1.3	Project value	As per 240-89926574, section 8, page 9		6
	1.4	Substation name and completion date	As per 240-89926574, section 8, page 9		6
	1.5	Client contact person and details	As per 240-89926574, section 8, page 9		6
A2	Qualifications and experience of key personnel		As per 240-89926574, section 8, page 9	30	
	2.1	Academic qualifications	As per 240-89926574, section 8, page 9		12
	2.2	Project-specific work experience	As per 240-89926574, section 8, page 9		12

	2.3	Total number of manpower to be dedicated to this project	As per 240-89926574, section 8, page 9		6
A3	Construction/method statements		As per 240-89926574, section 8, page 9	30	
	3.1	Relevancy of method statements	As per 240-89926574, section 8, page 9		15
	3.2	Adequacy of method statements	As per 240-89926574, section 8, page 9		15
A4	Tools and Equipment		As per 240-89926574, section 8, page 9	10	
	4.1	Adequacy of tools and equipment	As per 240-89926574, section 8, page 9		10
				TOTAL: 100	

3.6 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Qualitative Criteria (A) Number	TET 1	TET 2
A1	X	X
A2	X	X
A3	X	X
A4	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.	Contractors who do not have the relevant experience.

3.7.2 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:

Name	Designation
Trevino Moonsamy	Substation Engineering, Senior Engineer
Percy Seboco	Substation Engineering, Chief Technologist
Subhas Maharaj	Substation Engineering, Senior Manager

5. REVISIONS

Date	Rev.	Compiler	Remarks
14 July 2022	1	P. Seboco	First issue

6. DEVELOPMENT TEAM

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

- P. Seboco

7. ACKNOWLEDGEMENTS

None

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APPENDIX A

Criteria	Section	Maximum score	Achieved score
Relevant company experience (comparable projects undertaken in past 5 years)	A1	30	
Qualification and experience of key personnel	A2	30	
Construction/Method statements	A3	30	
Tools and Equipment	A4	10	
Total		100	

Item	Description	Section Criteria Weight (%)	Criteria Sub Weighting (%)	Score (0-5)	Sub Weighting (%) = ((Score)/5) X (criteria sub weighting)	Criteria
A1	Relevant company experience (comparable projects undertaken in past 5 years)	30%	-	-	-	-
1.1	Number of projects		6%			>8 Projects = 5 ; 3 to 7 projects = 4 ; 1 to 2 projects = 2 ; none provided = 0
1.2	Project scope		6%			provided = 5 ; None provided = 0
1.3	Project value		6%			> R8m = 5 ; R2m to R8m = 4 ; < R2m = 2
1.4	Substation name and completion date		6%			Name and date provided = 5 ; Only name or date provided = 2 ; None provided = 0
1.5	References : Client contact person and contact details		6%			Contact name and contact details provided = 5 ; Only contact name or only contact details provided = 2 ; None provided = 0
A2	Qualifications and experience of key personnel	30%	-	-	-	-
2.1	Academic qualifications		12%			Diploma = 5 ; Certificate/artisan = 4 ; Grade 12 (National Senior Certificate) and National (vocational) Cert. level 4 = 2 ; None provided = 0
2.2	Project-specific work experience		12%			>8 Projects = 5 ; 3 to 8 Projects = 4 ; <3 Projects = 2 ;

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						None provided = 0
2.3	Total number of manpower to be dedicated to this project		6%			>20= 5; 10 to 20 = 4; less than 10 = 2; none provided = 0
A3	Construction/method statements	30%	-	-	-	-
3.1	Relevancy of method statements		15%			All seven provided = 5 ; less than seven provided = 2 ; Irrelevant or none provided = 0
3.2	Adequacy of method statements		15%			Detailed procedures for all activities = 5 ; Detailed procedures for some activities = 2; Irrelevant or none provided = 0
A4	Tools and Equipment	10%	-	-	-	-
4.1	Adequacy of tools and equipment		10%			Detailed = 5 ; Marginal = 4 ; Deficient = 2
TOTAL		100%				

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