

	Strategy	Engineering
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C&I Engineer	C&I Engineering Manager	Kriel Power Station Engineering Manager
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1. INTRODUCTION

The tender is for the supply and maintenance of thermocouples in Kriel Power Station, which are critical for monitoring thermal excursions and ensuring the longevity of boiler headers and high-pressure (HP) pipework. The thermocouples must be maintained to ensure accurate temperature readings, which are used to calculate the Thermal Index (TI) and ensure compliance with Eskom's standards.

The scope includes the supply, installation, maintenance, and calibration of thermocouples on boiler headers, main steam, and hot reheat pipework. The supplier must ensure that the thermocouples are installed according to the specified standards in section 2.2.2 and that the data collected is accurate and reliable.

2. SUPPORTING CLAUSES

2.1 SCOPE

The document covers the technical evaluation of tenders for the supply and maintenance of thermocouples at Kriel 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

Kriel 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] 240-168966153: Generation Tender Technical Evaluation Procedure
- [2] 240-48929482: Tender Technical Evaluation Procedure (Transmission and Distribution)
- [3] ISO 90001: Quality Management System

2.2.2 Informative

- [4] 240-53716769: Technical Evaluation Strategy Template
- [5] 240-56355888: Temperature Measurement Systems Installation Standard
- [6] 240-56355754: Field Equipment Installation Standard

2.3 DEFINITIONS

Thermal Index (TI): An index that approximates the additional equivalent operating hours or extra life consumption experienced by boiler headers or HP pipework due to operation at temperatures exceeding the reference temperature.

Thermal Excursion: An event where the ruling thermal index temperature exceeds the reference temperature.

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2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
TI	Thermal Index
HP	High Pressure
TET	Technical Evaluation Team
TES	Technical Evaluation Strategy

2.5 ROLES AND RESPONSIBILITIES

As per 240-168966153: Generation Tender Technical Evaluation Procedure for Generation
OR

240-48929482: Tender Technical Evaluation Procedure for Transmission and Distribution

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

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	██████████	C&I Engineer
TET 2	██████████	C&I Engineer
TET 3	██████████	C&I Engineer

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3.3 MANDATORY TECHNICAL EVALUATION CRITERIA**Table 2: Mandatory Technical Evaluation Criteria**

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Proven experience in maintaining thermocouples	List of similar projects completed in the last 5 years. Minimum of 2 completed projects with reachable references.	Thermocouples at Kriel Power Station operate under extreme conditions (high temperatures and pressures). Suppliers with prior experience in this environment are more likely to understand the specific challenges and requirements, such as the need for accurate temperature monitoring and the impact of thermal excursions on plant health.

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA**Table 3: Qualitative Technical Evaluation Criteria**

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	Quality of proposed maintenance and calibration procedures The proposed procedures must align with Eskom's standards for thermocouple maintenance and calibration. High-quality procedures ensure that thermocouples are maintained to the highest standards, reducing the risk of inaccurate temperature readings and ensuring the reliability of the Thermal Index.		Detailed Installation, maintenance and fault-finding methodology (from the point of installation up to the Control System)	50%	25%
			Supply a sample of Inspection & Test Plans (ITP) for thermocouple installation		25%
2.	Proof of tools Evidence that demonstrates ownership of multimeters, megger, temperature loop calibrator		Valid Certifications and their calibration certificates.	50%	50%
				TOTAL: 100	100%

3.5 TET MEMBER RESPONSIBILITIES**Table 4: TET Member Responsibilities**

Mandatory Criteria Number	TET 1	TET 2	TET 3
1	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3
1	X	X	X
2	X	X	X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS**3.6.1 Risks****Table 5: Acceptable Technical Risks**

Risk	Description
1.	
2.	

Table 6: Unacceptable Technical Risks

Risk	Description
1.	
2.	

3.6.2 Exceptions / Conditions**Table 7: Acceptable Technical Exceptions / Conditions**



Risk	Description
1.	
1.	

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	
2.	

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
[REDACTED]	C&I Engineer	
[REDACTED]	C&I Engineer	

5. REVISIONS

Date	Rev.	Compiler	Remarks
March 2025	2.0	[REDACTED]	Amending the criteria

6. DEVELOPMENT TEAM

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

[REDACTED]
[REDACTED]

7. ACKNOWLEDGEMENTS

[REDACTED]

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