Eskom	TECHNICAL EVALUATION CRITERIA	GROOTVLEI POWER STATION

Supply, delivery of Ash Fusion Temperature instrument, install instrument, train staff on how to use it and service the supplied instrument for 60 months on as and when required basis.

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1. Introduction

Grootvlei Power Station consists of 3 wet cooled units which produce 200MW each at full load, during the process of electricity generation, the station uses coal results from Ash Fusion Temperature instrument to determine Initial Deformation Temperature (DT), Softening Temperature (ST), Hemispherical Temperature (HT), Flow Temperature (FT). These stages mark the progression from initial softening to complete liquefaction of the ash, with the specific temperatures depending on the coal's unique ash composition and the surrounding combustion atmosphere. Understanding these stages is crucial for predicting and preventing ash-related problems like slagging and fouling in the combustion boiler.

2. Supporting Clauses

2.1 Scope

Supply, delivery of Ash Fusion Temperature instrument, install instrument, train staff on how to use it and service the supplied instrument for 60 months on as and when required basis.

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

This document shall apply to Grootvlei Power Station.

2.1.3 Effective date

Not Applicable

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] The provision of Ash Fusion Temperature instrument at Grootvlei Power Station, coal laboratory.

2.2.2 Informative

Not Applicable.

2.3 Definitions

2.3.1 Classification

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

2.4 Abbreviations

Abbreviation	Description
TET	Technical Evaluation Team
N/A	Not Applicable
AFT	Ash Fusion Temperature

2.5 Roles and Responsibilities

As per 240-48929482: Tender Technical Evaluation Procedure

2.6 Process for Monitoring

Not applicable

2.7 Related/Supporting Documents

Not applicable

3. TENDER TECHNICAL EVALUATION STRATEGY

3.1 TECHNICAL EVALUATION THERESHOLD

Mandatory Technical Evaluation Criteria (gatekeepers) are ‘must meet’ criteria. These criteria shall not be weighted, or point scored but shall be assessed on a Yes/No basis as to whether the criteria are met. An assessment of ‘No’ against any criterion shall technically disqualify the tenderer and the tenderer shall not be further evaluated against Qualitative Criteria.

Qualitative Technical Evaluation Criteria are weighted evaluation criteria used to identify the highest technically ranked tenderer after determining that all the Mandatory Evaluation Criteria have been met. The Qualitative Evaluation Criteria are weighted to reflect the relevant importance of each criterion.

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 75% on Section 1 and 100% on section 2 of technical evaluation. Section 2 is considered the most important section since it talks more about instrument performance and production of reliable results.

3.2 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Motivation for use of Criteria
1	Technical Data Sheet of the instrument including drawings and how it operates.	Instrument that does not have technical data sheet does not give details of how it operates.
2	Must reach temperature of 1500°C	Temperature below 1500°C may result in not knowing the deformation temperature of coal in the boiler. indicate in your datasheet.
3	Instrument must detect the following parameters: Initial Deformation Temperature (DT), Softening Temperature (ST), Hemispherical Temperature (HT), Flow Temperature (FT).	Detecting three or less than four parameters defeat the purpose of this instrument.
4	Supplier must have a workshop	Suppliers with no workshop does not guarantee after sale market. Send proof of workshop.

3.3 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 3: Qualitative Technical Evaluation Criteria

Detailed technical evaluation: Section one to be completed by end-user before visiting workshop of suppliers.

Section 1:

	Factor	Weight	feedback	Score of Weigh t	Suppliers Score		
1	Instrument able to analyse six or more samples per run.	50%	Analyse six or more samples per run.	100%			
			Analyse three to five samples.	60%			
			Analyse two samples	40%			
			Analyse one sample	20%			
2			Uses computer software and	100%			

	Instrument must use computer, software and data stored in software.	50%	data stored in computer				
			Do not use software and data stored in instrument	60%			
			Instrument not storing data	20%			
			Detect three or less. (Detecting less than four defeats the purpose of this instrument)	0%			
	Total	100%					

Threshold

The threshold on the technical evaluation criteria is 75%for section 1. Suppliers / Service providers would be deemed technically unacceptable if they score less than the threshold score and will thus not be evaluated further to section 2.

Section 2 All who passed section one technical evaluation will be evaluated further to section 2. End-user to visit workshops of suppliers to do analysis of supplier standards (Nickel and Gold) using instrument that is similar to the one that is to be supplied to Grootvlei power station.

	Factor	Weight	feedback	Score of Weight	Suppliers Score		
1	Instrument analysing Gold and Nickel as per their true values and within upper and lower limits.	100%	Gold melting at 1064°C. Nickel melting at 1455°C. Results within upper results within ±2 x standard deviation.	100%			
			Gold melting at 1064°C. Nickel melting at 1455°C. Results above ±2 x standard deviation and below ±3 x standard deviation of true value.	70%			
			Gold melting at 1064°C. Nickel melting at 1455°C. Results reading outside control limits,above ±3 x	0%			

			standard deviation of true value.				
	Total	100%					

For supplier to be considered technical acceptable should pass the second section of technical evaluation by 100%. Suppliers who passed will be evaluated further.

Feedback:_____
_____
_____

Rating for Technical Criteria

Rating for Individual Technical Criteria	%
Completely Meets Technical Requirement	100
Mostly Meets Technical Requirement	75
Partially Meets Technical Requirement	50
Mostly Does Not Meet Technical Requirement	25
Does not Meet Technical Requirement	0

3.4 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

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

3.5 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

Table 5: Acceptable Technical Risks

Risk	Description
1.	N/A

Table 6: Unacceptable Technical Risks

Risk	Description
1.	N/A

3.6 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	N/A

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	N/A

4. Acceptance

This document has been seen and accepted by:

Name	Designation
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5. Revisions

Date	Rev.	Compiler	Remarks
October 2025	1	M Netshidzati	Final Document

6. Development Team

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

- Mpho Netshidzati

7. Acknowledgement

None