

Title: **Medupi Power Station
Engineering Services Tender
Technical Evaluation Strategy**

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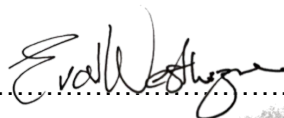
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Date: 2022 / 01 / 17

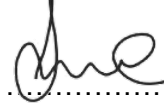
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1. INTRODUCTION

Engineering services are required to address engineering challenges as to accelerate Medupi Power Station performance. The high load losses experienced on the plant is also one to be taken into consideration to ensure that the operational requirements are met by implementing engineering solutions that will increase the energy capability. Experience engineering practitioners with a good track record in the power plant industry will be an advantage to accelerate solutions

2. SUPPORTING CLAUSES

2.1 SCOPE

This tender technical evaluation strategy refers to the services required for engineering resources at Medupi Power Station. The evaluation of each tender is conducted by appointed members of a technical evaluation team (TET). The criteria for the technical evaluation as part of this strategy includes:

- a) Mandatory evaluation criteria
- b) Qualitative evaluation criteria
- c) TET member responsibilities
- d) Acceptable and unacceptable qualifications

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 is intended for, and shall be applicable to, Medupi 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] 240-48929482: Tender Technical Evaluation Procedure
- [2] 240-53716726: Tender Technical Evaluation Scoring Form

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2.2.2 Informative

- [3] 240-123582422: Medupi Power Station Engineering Human Resource Capacity Service Contract Scope of Work
- [4] 32-1034: Eskom Procurement Policy

2.3 DEFINITIONS

2.3.1 Classification

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

2.3.2 Tender

A tender refers to a written competitive offer, quotation or proposal made by the supplier in a prescribed or stipulated form in response to an invitation to tender/competitive enquire for provision of assets, goods or services and/or the disposal thereof.

2.4 ABBREVIATIONS

Abbreviation	Description
GAH	Gas Air Heater
NDT	Non-Destructive Test
PJB	Pre-Job Brief
QCP	Quality Control Plan
SAH	Steam Air Heater
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

2.6 PROCESS FOR MONITORING

The tender technical evaluation is monitored as part of the Procurement process.

2.7 RELATED/SUPPORTING DOCUMENTS

- [5] 240-53716746: Tender Technical Evaluation Report Template
- [6] 240-53716712: Tender Technical Evaluation Results Form Template
- [7] 240-53716726: Tender Technical Evaluation Scoring Form Template

3. TENDER TECHNCIAL EVALAUTION STRATEGY

In order to be eligible for evaluation, the tenderer shall meet all the mandatory requirements.

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The evaluation of tenders will be based on the tenderer's ability to meet the requirements specified in the Scope of Work [3]. A weighted score card approach will be used to evaluate the tenders against the Employer's requirements. The following table scoring method will be used as guided by the Tender Technical Evaluation Procedure [1].

Score	Percentage	Description
5	100	COMPLIANT <input type="checkbox"/> Meet technical requirement(s)/AND; <input type="checkbox"/> No foreseen technical risk(s) in meeting technical requirements.
4	80	COMPLIANT WITH ASSOCIATED QUALIFICATIONS <input type="checkbox"/> Meet technical requirement(s) with; <input type="checkbox"/> Acceptable technical risk(s) AND/OR; <input type="checkbox"/> Acceptable exceptions AND/OR; <input type="checkbox"/> Acceptable conditions.
2	40	NON-COMPLIANT <input type="checkbox"/> Does not meet technical requirement(s) AND/OR; <input type="checkbox"/> Unacceptable technical risk(s) AND/OR; <input type="checkbox"/> Unacceptable exceptions AND/OR; <input type="checkbox"/> Unacceptable conditions.
0	0	TOTALLY DEFICIENT OR NON-RESPONSIVE

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

The TET members are a multi-disciplinary group of people who are appointed to conduct an individual technical evaluation of each tender. The list of TET members are to be reviewed and updated as often as the technical evaluation is required to be conducted. In the event that a TET member is unable to conduct a particular technical evaluation, a proxy of the same stature as that of the TET member must be delegated.

Table 1: TET Members

TET number	TET Member Name	Designation
TET 1	Benji Rahlogo	Chief Technologist

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TET 2	Nthabi Mashigo	Manager Control and Instrumentation Engineering
TET 3	Sithokozile Hlongwa	Manager Boiler Engineering
TET 4	Langa Zuma	Manager Auxiliary Engineering
TET 5	Elaine Van Der Westhuizen	Manager Design and Specification Engineering
TET 6	Moses Nonyane	Contract Manager

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3.3 MANADATORY TECHNICAL EVALUATION CRITERIA

The mandatory technical evaluation criteria, also referred to as the Gate Keepers, are the criteria which must be met in order for the tender to be considered for further technical evaluation. If any of the mandatory technical criterion are not met, the tender is immediately disqualified from the technical evaluation.

Table 2: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Professional Registration with ECSA in Mechanical	15 x Pr. Eng. /Pr. Tech. Registration Certificate	Indication of the candidate's competency to work independently and to provide professional technical leadership in his/her discipline.
2.	Professional Registration with ECSA in Electronics	2 x Pr. Eng. /Pr. Tech. Registration Certificate	Indication of the candidate's competency to work independently and to provide professional technical leadership in his/her discipline.

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

The qualitative technical criteria contains main criteria with sub-criteria. Each main criterion has a weighting towards the final technical score calculation. Each sub-criteria has a weighting towards the calculation of the main criterion.

Table 3: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
1.	Company Profile		10	
	1.1 Evidence of resources placed in the past three years.	List of projects and resources placed.	30	0: 0 or < 1yr 2: 1 or <2yrs 4: 2 or <3yrs 5: >3yrs

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
	1.2	Provide the number of engineering resources required per discipline in line with the scope of work.	CV's and Qualifications	70	0: No submission 2: Required number of resources has not been provided or the resources that have been provided have no relevant experience. 4: The resources that have been provided meet the minimum requirements in terms of qualifications and experience. 5: The resources that have been provided exceed the minimum requirements in terms of qualifications and experience.
2.	Plant System Engineers			60	
	2.1	Pressure Parts <i>Tubes, Buckstay, Lugs, Lollipop</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	8	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.2	Milling Plant <i>Grinding Table, Rollers, Throat, Classifier</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	8	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.3	Pulsating Jet Fabric Filter	CV's and Qualifications	7	0: No submission

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
		<i>Bags, Cages, Dampers,</i>	(B Eng/BSc/B Tech Mechanical)		2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.4	Gas and Steam Air Heater <i>Rothemühle, Fin and Tube</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.5	Draught Plant <i>Axial fan, Radial fan</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.6	Steam Piping and Thick wall Components <i>Hangers, Distributors, Separators</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
					5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.7	Boiler Auxiliaries <i>Valves, Pumps, Vessels, Manifolds</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.8	Sootblowers <i>Lance, Water Cannons, Pumps</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.9	Fuel Oil <i>Pumps, Heat Exchanger and FO Burners</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.10	Ducting <i>Dampers, Links, Expansion Joint</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
					4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.11	Boiler Analytics <i>Boiler Heath Care Program</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.12	Low Pressure Services <i>Aux Cooling, Raw Water, Compressor</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.13	Bulk Material Handling Systems <i>Stackers, reclaimers, conveyors</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	7	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	2.14	Process Networks	CV's and Qualifications	7	0: No submission

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
		<i>Cybersecurity, PLC (Siemens and Alen Brandley), System Administration Automation System (Siemens and Alsipa)</i>	(B Eng/BSc/B Tech Instrumentation/Computer Science)		2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
3.	Plant Senior Engineers			20	
	3.1	Fuel and Combustion Systems <i>Coal, Combustion Air, Flue Gas</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	30	0: No submission 2: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7 5: ECSA Professional Registration Certificate; >4yrs Experience; NQF level 8
	3.2	Bulk Material Handling Systems <i>Stackers, reclaimers, conveyors</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical)	30	0: No submission 2: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7 5: ECSA Professional Registration Certificate; >4yrs Experience; NQF level 8
	3.3	Process Networks <i>Cybersecurity, PLC (Siemens and Alen Brandley), System Administration Automation System (Siemens and Alsipa)</i>	CV's and Qualifications (B Eng/BSc/B Tech Instrumentation/Computer Science)	40	0: No submission 2: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting
					5: ECSA Professional Registration Certificate; >4yrs Experience; NQF level 8
4.	Technical			10	
	4.1	Logistic <i>Spares Categorisation, Preservation, Industrial Engineering</i>	CV's and Qualifications (B Eng/BSc/B Tech Industrial)	60	0: No submission 2: ECSA Professional Registration Certificate; >1yrs Experience; NQF level 6 4: ECSA Professional Registration Certificate; >2yrs Experience; NQF level 6 5: ECSA Professional Registration Certificate; >3yrs Experience; NQF level 7
	4.2	Data Capture <i>Technical reports, minutes, capturing, analysis, visualisation</i>	CV's and Qualifications (B Eng/BSc/B Tech Mechanical/Electrical/Chemical/Instrumentation)	40	0: No submission 2: No Trade Test Certificate; >3yrs Experience; NQF level 6 4: Trade Test Certificate; >1yrs Experience; NQF level 6 5: Trade Test Certificate; >3yrs Experience; NQF level 6
TOTAL:				100	

3.5 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	TET 6
1.1	X	X	X	X	X	X
1.2	X	X	X	X	X	X
1.3	X	X	X	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	TET 6
2.1	X		X		X	X
2.2	X		X		X	X
2.3	X		X		X	X
2.4	X		X		X	X
2.5	X		X		X	X
2.6	X		X		X	X
2.7	X		X		X	X
2.8	X		X		X	X
2.9	X		X		X	X
2.10	X		X		X	X
2.11	X		X		X	X
2.12	X			X	X	X
2.13	X			X	X	X

Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	TET 6
2.14	X	X			X	X
3.1	X		X		X	X
3.2	X			X	X	X
3.3	X	X			X	X
4.1	X	X	X	X	X	X
4.2	X		X		X	X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 5: Acceptable Technical Risks

Risk	Description
1.	
2.	
3.	

Table 6: Unacceptable Technical Risks

Risk	Description
1.	Scope omission
2.	
3.	

3.6.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	None
2.	
3.	

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	None
2.	
3.	
4.	

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Sithokozile Hlongwa	Manager, Boiler Engineering	
Nthabi Mashigo	Manager, Control and Instrumentation Engineering	
Langa Zuma	Manager, Auxiliary Engineering	
Moses Nonyane	Manager Contracts	

5. REVISIONS

Date	Rev.	Compiler	Remarks
October 2020	Initial draft	BK Rahlogo	Development of the criteria for the tender technical evaluation of the engineering services.

6. DEVELOPMENT TEAM

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

- Elaine Van Der Westhuizen
- Jabulani Mkhathshwa
- Sithokozile Hlongwa
- Nthabi Mashigo
- Langa Zuma

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