

 Eskom	Strategy	Majuba Power Station
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Title: Tender Technical Evaluation Strategy for the capability assessment of service providers for the Mechanical General Work on Turbine Plant in Eskom Majuba power station U1&U3 GOs.

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1. INTRODUCTION

The purpose of this document is to outline the scope of work that is required to execute Turbine general work at Majuba Power Station and the Technical evaluation strategy to be followed in acquiring such external services. The scope of work also entails the contractor to supply the required soft spares (i.e gasket, pressure seal and packings) during the refurbishment process.

2. SUPPORTING CLAUSES

2.1 SCOPE

The scope of work entails the following aiming at execution of Turbine general work at Majuba Power Station to OEM specifications and testing to meet operational requirements:

All soft spares will be supplied by the contractor and should be in accordance to the OEM requirements/specification. Free issue spares will be listed in the appendix.

- The contractor develops and submits QCP for approval by the end user – System Engineer prior to commence of any activities in the Works Information/Scope of Work issued.
- When submitting the QCP, the following procedures are required based on scope of works and type of safety valve being worked on:
 - Stripping procedure
 - Inspection procedure
 - Repair procedure
 - Assembly procedure
 - Inspection and dimension check sheets
- Visual Inspection (internal and external plant item and components) to be carried out together with Eskom and contractor Quality Inspector. Take photos if necessary. The inspection check sheet/ or report to be completed per item and shared with the System Engineer for recommendations.
- Plant equipment to be visually inspected or NDT to be done by onsite contractor if necessary. All relevant control sheets must be completed (signed by both Eskom's and Contractor's Quality Inspector).
- Sealing surfaces on heat exchangers, strainers, vessels to be inspected for, pitting and erosion and surface crack tested (NDT) and conduct dimensional checks.
- Vessels, heat exchangers or strainer bodies to be inspected for scoring, pitting and erosion and surface crack tested (NDT). Depending on the nature of damage of the item, if the component cannot be repaired; replacement of the item to be executed with an agreed preferred method.

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- All gland retaining studs and nuts to be removed and visually inspected. All studs and nuts to be of same dimension with respect to the plant item.
- Nuts and studs are to be removed and inspected for damage to threads, corrosion and stretching of studs. Replace if damaged or out of specification.
- Studs holes to be inspected for thread damage and repaired as required. All nuts to be free and not seized on studs. When an item is assembled, ensure that washers or springs are in place and (at least 3-4 threads is exposed on the studs when nuts are tightened).
- Special attention to be paid to gasket sealing areas. Gaskets are to be checked to conform to the recommended material with respect to temperature and pressure rating per plant item. Ensure correct gasket dimensions.
- Ensure that the correct spring coupling material and stiffness index is adhered too when replacing the spring.
- Check for any physical damage (cracks, deformation, blockage) on the perforated cages, report to System engineer for recommendation.
- The contractor is to provide secure storage for all components. The contractor at his own cost will replace lost components.
- The contractor shall provide a technical report of the inspection findings and repairs conducted on every component. The report should as a minimum include the following:
 - The initial condition of the plant item after stripping – report on debris, wear, and defects noted on the plant items and associated components.
 - The repairs/replacements conducted to restore the plant item mechanical integrity.
 - Measured dimensions vs. allowable tolerances
 - List of recommended actions and/or spares for the next overhaul
 - Photographs of all notable defects
- The following activities are the minimum activities expected to be carried out by the Contractor, the actual list can only be done after inspections. There are other activities that will be done but are depending on the inspection and before doing they must be confirmed with the Project Manager for time and cost.
- No plant item or component to leave site without the authorization from the Project Co-ordinator, issuing a gate release document.

Completion

In accordance with the Works Information, the works are completed by the Completion Dates as per the latest agreed programme between Employer and Contractor.

Data pack to be provided with electronic copies to the Project Manager, System Engineer and the document centre for storage.

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.

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2.1.2 Applicability

This document shall apply to Majuba 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] 240-142257054 Technical Evaluation Standard for the Capability Assessment of Service Providers for the Refurbishment of Valves and Fittings in Eskom Coal Fired Power Plants
- [3] 240-105658000 (QM 58) – Supplier quality management specification

2.2.2 Informative

- [4] Not Applicable

2.3 DEFINITIONS

2.3.1 Refurbishment/Overhaul: The refurbishment or overhaul is the servicing of valves to OEM specification.

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

2.3.3 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
OEM	Original Equipment Manufacturer
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

Roles are applicable as per 240-48929482: Tender Technical Evaluation Procedure

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2.6 PROCESS FOR MONITORING

Not applicable

2.7 RELATED/SUPPORTING DOCUMENTS

Not applicable

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	Musa Makhoba	System Engineer – Turbine Auxiliaries
TET 2	Erol Mpela	Outage coordinator
TET 3	Nqubeko Chonco	Outage coordinator

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3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria

		Tender Technical Evaluation Strategy for the capability assessment of service providers for the refurbishment of Turbine Safety Valves in Eskom Majuba power station.	
Section A - MANDATORY	TECHNICAL REQUIREMENTS	OBJECTIVE EVIDENCE TO BE PRODUCED	CRITERION ACHIEVED YES/NO
1.	Reference list of employers recently where scope was carried out.	The service provider provides demonstrable evidence that the company has been in the mechanical maintenance repair on turbine, welding, and refurbishment business for a period of not less than 3 – 5 years.	Applicable to all service providers
2.	Service provider to provide proof of ISO certification for mechanical work and welding.	The service provider provides demonstrable proof of ISO certification: ISO 9001: 2015 - Quality management systems Requirements ISO 3834 part 2 - Quality requirements for fusion welding of metallic materials	Applicable to all service providers

Table 3: Qualitative Technical Evaluation Criteria

3.3.2.3 Basic engineering capability, repair, and refurbishment control	10	The service provider demonstrates capability to overhaul heat exchangers, fabrication and key activities and required tests (e.g., previous work, QCP's). 0 - No evidence is provided 2 - No previous work but QCP's are provided 4 - More than 5 previous jobs done and detailed QCP's. 5 - All documents are submitted	Number	0	2	4	5	
3.3.2.4 Equipment and tooling	10	The service provider demonstrate compliance to the minimum required equipment and tooling. 0 - No Tools 2 - Only sheet with tool list 4 - 80% equipment is shown (e.g., Welding machines, slings etc) 5 - All necessary equipment and tooling is provided	Number	0	2	4	5	
3.3.2.5 Receiving inspection controls	10	The service provider demonstrates his receiving inspection controls by using the arrival of a spare component from the Client/Employer as an example. 0 - No response 2 - Only previous records are supplied 4 - only Procedure is supplied 5 - Both procedure and previous work records are supplied	Number	0	2	4	5	
3.3.2.6 Control of inspection, measuring and test equipment	10	The service provider provides demonstrable proof for the control of inspections, measurements, and test equipment. 0 - No proof provided. 2 - Only procedure provided. 4 - Previous work measurements and procedure provided. 5 - Procedure, previous work measurements and test equipment list provided.	Number	0	2	4	5	
3.3.2.7 Inspection and	10	The service provider provides copies of inspection, test and measurements records.	Number	0	2	4	5	

testing during repair and refurbishment		• 0 - No documents provided. • 2 - Only one of the three reports provided. • 4 - Two of the three reports provided. • 5 - All three reports are provided.					
3.3.2.8 Artisan tool kits	10	The service provider shall demonstrate that artisan toolboxes are sufficiently equipped for his scope of capability. • 0 - No toolbox • 2 - 30% of the tools required for the task • 4 - 70% of the tools required for the task • 5 - 100% of the tools required for the task	Number	0	2	4	5
3.3.2.9 Acid cleaning experience of vessels and heat exchangers	10	The service provider provides demonstrable proof of acid cleaning of vessels and heat exchangers of power plant/heavy mechanical industry for a minimum combined period of greater or equals to 12 months. • 0 - No documents provided. • 2 - Only one of the three reports provided. • 4 - Two of the three reports provided. • 5 - All three reports are provided.	Number	0	2	4	5
3.3.2.10 Special processes such as welding	10	The service provider provides demonstrable evidence of his ISO 3834-2 certification and a sample datebook for work carried out in the last 3 years. In cases where special processes are outsourced, the service provider provides demonstrable evidence of his outsourcing controls and a copy of the special process service providers' data book. • 0 - No proof • 2 - 1-year proof • 4 - 2 years proof • 5 - 3 or more years proof	Number	0	2	4	5

3.5 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number			
TET 3	TET 2	TET 1	Reference list of employers recently where scope was carried out
X	X	X	Service provider to provide proof of ISO certification for mechanical work and welding.
Qualitative Criteria Number			
TET 3	TET 2	TET 1	3.3.2.1 Company leadership and accountability
X	X	X	3.3.2.2 Personnel qualifications
X	X	X	3.3.2.3 Basic engineering capability, repair, and refurbishment control
X	X	X	3.3.2.4 Equipment and tooling
X	X	X	3.3.2.5 Receiving inspection controls
X	X	X	3.3.2.6 Control of inspection, measuring and test equipment
X	X	X	3.3.2.7 Inspection and testing during repair and refurbishment
X	X	X	3.3.2.8 Artisan tool kits
X	X	X	3.3.2.9 Acid cleaning experience of vessels and heat exchangers
X	X	X	3.3.2.10 Special processes such as welding

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Risk	1.
Description	Inadequate or less than required number of core team.

Table 6: Unacceptable Technical Risks

Risk	1.
Description	Unavailable proof of personnel qualification

3.6.2 Exceptions / Conditions

Table 7: Acceptable Technical Exceptions / Conditions

Risk	1.
Description	None

Table 8: Unacceptable Technical Exceptions / Conditions

Risk	1.
Description	None

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Musa Makhoba	System Engineer, Turbine Auxiliaries	
Erol Mpela	Outage coordinator	
Nqubeko Chonco	Outage coordinator	

5. REVISIONS

Date	Rev.	Compiler	Remarks
July 2025	1		First Draft

6. DEVELOPMENT TEAM

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

- See section 4 above

7. ACKNOWLEDGEMENTS

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