



Strategy

Engineering

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1. INTRODUCTION

This Technical Evaluation Strategy is for the Installation portion for the replacement of the complete unit set of bags: 9620 bags per unit, on four units at Camden Power Station, two of which will require lime pre-coating. Replacement of the bags at their end of life is essential in order for the station to meet the Atmospheric Emissions License (AEL) Limits and Station Contract Environmental – Air Quality Targets.

Camden Power Station has bag filters or fabric filter plant (FFP) installed for the control of particulate matter (PM) or dust emissions. High temperature PPS/PI bags are used due to the site specific design. Bag life is typically 30 000 operating hours and this will be the fourth cycle of full unit bag replacement.

2. SUPPORTING CLAUSES

2.1 SCOPE

The minimum scope requirement is the removal of the old set of bags and cages and the installation of a new complete set of FFP Bags and Cages on four units at Camden Power Station. All removed cages will be re-used however damaged cages will be repaired first and cages beyond repair will be replaced with new, which will be provided by the station. Two units are anticipated to be conducted off-load during an outage and two units will be conducted on-load cell by cell. For further details and requirements please refer to the scope of work also included in the enquiry.

2.1.1 Purpose

The purpose of this tender technical evaluation strategy is to define the Mandatory Evaluation Criteria, Qualitative Evaluation Criteria and Technical Evaluation Team (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 throughout Camden Power Station more specific to the Boiler Engineering and Projects Departments as well as the Boiler Maintenance, Quality Control and Environmental Departments.

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 Technical Tender Evaluation Procedure, Rev 1
- [2] 240-101716454: Work Instruction for the Evaluation and Assessment of Service Providers for FFP Related Work
- [3] 32-727: Safety, Health, Environment and Quality (SHEQ) Policy
- [4] 240-105658000: Supplier Quality Management Specification
- [5] 240-106628253: Standard for Welding Requirements on Eskom Plant

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2.2.2 Informative

None

2.3 DEFINITIONS

None

2.3.1 Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
AEL	Atmospheric Emission License
APC	Air Pollution Control
FFP	Fabric Filter Plant
ITP	Inspection and Test Plan
ISO	International Organization for Standardization
MPI	Magnetic Particle Inspection
NCR	Non-Conformance Report
PEI	Production Engineering Integration
PM	Particulate Matter
PPS/PI	Polyphenylene Sulphide/Polyimide (P84®)
PSR	Plant Safety Regulations
QC	Quality Control
QCP	Quality Control Plan
RP	Responsible Person
TET	Technical Evaluation Team
WPS	Welding Procedure Specification

2.5 ROLES AND RESPONSIBILITIES

240-168966153 Generation Technical Tender Evaluation Procedure, Rev 1

2.6 PROCESS FOR MONITORING

N/A

2.7 RELATED/SUPPORTING DOCUMENTS

240-101716454 Work Instruction for the Evaluation and Assessment of Service Providers for FFP Related Work – A service provider can only be deemed eligible to perform work on FFPs in Eskom if they comply

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with the standards and criteria contained in this document. Hence, the content of this document for FFP Bag Changes is used as the basis for development of the criteria for this enquiry.

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	Charlene Naicker	Senior Engineer, Boiler Engineering, Camden PS
TET 2	Ntokozo Sibiya	Senior Engineer, C&I Engineering, Camden PS
TET 3	Yamkela Mgwebi	System Engineer, Auxiliary Engineering, Camden PS
TET 4	Lisa Sew	Projects Manager, Camden PS
TET 5	Sipho Ndhlovu	Snr Welding Inspector, Camden PS

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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.	The service provider has previous traceable experience working on Major Fabric Filter Plant Installations or Conducting Full Unit Bag Replacements within South Africa.	The service provider is to provide proof (order or contract number/ copy of contract) of completing at least 2 similar projects within SA for this specific scope together with contact details of references.	This will clearly demonstrate the service provider's ability and experience to execute the installation. Having prior experience is critical to ensure successful execution.

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3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Minimum Threshold Score = 70 %

All necessary proof must be submitted to demonstrate compliance to the below criteria.

Table 3: Qualitative Technical Evaluation Criteria

COMPLIANCE TO ESKOM REQUIREMENTS							TOTAL SCORE
FABRIC FILTER PLANTS - BAG CHANGES							THRESHOLD SCORE 350
	CRITERIA	SUPPLIERS RESPONSE	GUIDELINE NOTES	WEIGH T	ACTUAL SCORE	TOTAL SCORE	
1	GENERAL MEASURES			15			
1.1	Company Profile	Organogram showing company structure from top management down to the relevant resources that will be involved with the bag changes. Names and Contact details must be provided for all persons listed.	5 points for full compliance, 4 points for partial, 2 points for provided with insufficient content, 0 for no submission	3			
1.2	Risk management	The Service Provider must have a risk identification and management process, related to the complete process of performing a bag change/replacement.	5 points for full compliance, 4 points for partial, 2 points for provided with insufficient content, 0 for no submission	6			
1.3	Project planning	The Service Provider must have a method statement that indicates how the bag replacement will be executed, what resources will be required and what measures will be put in place to execute the task successfully.	5 points for full compliance, 4 points for partial, 2 points for provided with insufficient content, 0 for no submission	6			
2	QUALITY			19			
2.1	Quality Management system	The Service Provider must have a Quality Management System (QMS) in accordance with 240-105658000 Supplier Quality Management: Specification	5 points for valid ISO 9001 certificate, 4 or 2 points for ISO compliant system (score for proof provided), 0 for no compliance.	7			

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	2.2	Quality control plans	The Service Provider must have draft Quality control plans specific to the bag change/ replacement scope of work		5 points if content satisfies requirements, 4 or 2 points for provided with insufficient content, 0 for no compliance.	5		
	2.3	Non Destructive Testing Procedures	The Service Provider has NDT Procedures in place.		5 points for full compliance, 4 points for partial, 2 points for provided with insufficient content, 0 for no submission	2		
	2.4	ISO 3834 Accredited	ISO 3834 accredited (Quality management system for welding).		5 points for full compliance, 4 points for partial, 2 points for provided with insufficient content, 0 for no submission	3		
	2.5	Welding procedures	The Service Provider needs to have Welding procedures in place that are certified in accordance to Eskom Standard 240-106628253		5 points for Eskom approved, 4 points for content satisfies Eskom requirements, 2 points for provided with insufficient content, 0 for no procedure.	2		
	3	WORKFORCE				23		
	3.1	Level of Staffing	The service provider must have enough suitably trained personnel employed to execute the bag change, working two, twelve hour shifts for the duration of the project.		5 points if sufficient trained staff permanently employed. 3-4 points if 50% of required staff is permanent and rest available on temporary basis. 1-2 points if all staff is temporary. 0 points if not enough staff	6		
	3.2	Staff Job Profiles	The service provider must have a job profile for different levels of personnel, showing required qualification, skills and related experience.		5 points for compliance, 4 points for partial compliance, 2 points for provided with	3		

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					insufficient content, 0 for no submission.			
	3.3	Authorisation of Supervisors	Does the Service Provider have a Responsible Person in terms of PSR. Relevant PSR Authorisation Certificates to be submitted.		5 points for 3 RP's; 4 points for 2 RP's; 3 Points for 1 RP.0 points for 0 RP's	5		
	3.4	Staff Training	The service provider must have a bag change specific training program that includes safety, task method, quality management and describes tasks and sub tasks. Proof of training completed must be recorded for each employee and indicated on the personnel database. Copy thereof to be submitted.		5 points for full compliance, 2 or 4 points if partially compliant, 0 for no compliance.	3		
	3.5	Welder Qualifications	Welders need to be qualified according to Eskom Standard 240-106628253, See Section 7, for Level 1 Plant – (<i>International Tube/Plate/Fillet Welder</i>), BS 9606, BS15614, BS15609. Qualifications together with proof of employment to be submitted.		5 points for total compliance, 4 for partial compliance, 2 points for some compliance, 0 for no compliance.	2		
	3.6	Fitter Qualifications	Fitters need to be trade tested qualified fitters. Proof of training on FFP fault finding and repair required. Qualifications together with proof of employment to be submitted.		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	2		
	3.7	Welding Supervisor	Welding supervisors need to be qualified as per Eskom Standard 240-106628253, See Section 7.4 (<i>International Welding Specialist/Practitioner-IWS or IWP</i>) and must be employed by the Service Provider. Qualifications together with proof of employment to be submitted.		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	2		

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	4	TOOLS AND EQUIPMENT				8		
	4.1	Asset list (Tools and Equipment)	The service provider has an asset list describing the tools and equipment it has available to execute the required project., including special tools		5 points if asset list indicates sufficient equipment to execute the required work. 4 or 2 points representing the available tools and equipment partially compliant, 0 if no asset list available/submitted	4		
	4.2	Calibration certificates	The service provider has calibration certificates from an independent body for thickness testers, measuring tapes, feeler gauges, verniers, torque wrenches and any other measuring devices.		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	2		
	4.3	Tools and Equipment planned maintenance	The equipment and tools of the service provider is on a planned schedule for inspection, testing and calibration. The schedule and history of planned maintenance is to be made available.		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	2		
	5	EXPERIENCE				14		
	5.1	Work Experience	The service provider need to have done at least 3 similar projects in the last three years or have at least 3 years related experience, and need to provide references. The service provider needs to have done similar work in the industry. A traceable record (Orders, contracts etc. with references) is required.		5 points for 3 similar jobs, 4 for 2 similar jobs, 1-2 for 1 similar job, 0 for no compliance	7		
	5.2	Data Packs	The service provider needs to have at least one fully signed off data pack available of similar work done previously, including resource planning, QCP's, job specific training etc.		5 points if contents are satisfactory, 4 for partial, 2 points for provided with insufficient content, 0 for	7		

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				no data pack submitted.			
6	PROCEDURES				9		
6.1	Incoming goods inspection procedure	The Service Provider needs to have a procedure in place indicating how externally sourced equipment/spares will be approved or use		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	4		
6.2	Sub supplier approval process	The Service Provider needs to have a procedure in place to approve sub suppliers		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	3		
6.3	Sub supplier performance management	The Service Provider needs to have a procedure in place indicating how sub supplier performance will be managed		5 points for compliance, 4 points for partial compliance, 2 points for provided with insufficient content, 0 for no submission	2		
7	GUARANTEE				12		
7.1	Workmanship guarantee	The Service Provider guarantees its workmanship for a minimum of 52 weeks or as specified in the specific enquiry.		5 points for full compliance, 2 for compliance with exceptions, 0 for no compliance	6		
7.2	Completion Of The Project, Guarantee	The Service Provider guarantees that completion of the work, will be as per the required completion dates.		5 points for full compliance, 2 for compliance with exceptions, 0 for no compliance	6		
					100		

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3.5 TET MEMBER RESPONSIBILITIES

Table 4: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5
1	X	X	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5
1	X	X	X	X	X
2	X	X	X	X	X
3	X	X	X	X	X
4	X	X	X	X	X
5	X	X	X	X	X
6	X	X	X	X	X
7	X	X	X	X	X

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Ntokozo Sibiya	Senior Engineer, C&I Engineering, Camden PS
Yamkela Mgwebi	System Engineer, Auxiliary Engineering, Camden PS
Lisa Sew	Projects Manager, Camden PS
Sipho Ndhlovu	Snr Welding Inspector, Camden PS

5. REVISIONS

Date	Rev.	Compiler	Remarks
May 2023	1	CR Naicker	Original Issue

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6. DEVELOPMENT TEAM

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

Charlene Naicker

Hendre Grobbelaar

7. ACKNOWLEDGEMENTS

None

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