

Strategy

Engineering

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Project - Tender Technical Evaluation Strategy

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1. INTRODUCTION

This document outlines the technical evaluation strategy for evaluating tenders received for the Drakensberg Blowdown Compressor Replacement Project.

The purpose of the project is to replace the old obsolete blowdown compressors.

The scope entails the design, manufacture, factory acceptance testing, transport, delivery to the site and installation of complete, fully functional and fully integrated solutions at Drakensberg Pumped Storage Scheme that consists of the following:

- Decommission and removal of existing IHI Compressors, control panels, cabling, pipework and associated equipment to enable installation of new compressors. Decommissioning also includes the demolishing of the existing plinths, steel structures and removal of the old compressors and equipment from the *Works* area to a pre-defined storage area at the station.
- Design, manufacture, factory acceptance test, supply, delivery to site, offloading, installation, testing and commissioning of the complete, fully functional and fully integrated solution that consists of the following equipment:
 - o Four (4) x Blowdown Air Compressors with 3-phase 380V AC Star delta motors.
 - Four (4) x OEM approved Electronic PLC Controllers, one for each new compressor to be installed in a position as identified on site. *Contractor* is responsible for new plinths for new local control panels, where required.
 - Four (4) x closed loop cooling water circuits, one for each compressor. The closed loop cooling circuit consists as a minimum of a heat exchanger, pump, air receiver for pressure damping, isolation valves, monitoring instrumentation and shall be designed for use with clean water and coolant.
 - Four (4) x pneumatic panels with associated equipment. Each compressor is equipped with a pneumatic panel that has its own stand and plinth.
 - o Four (4) x gauge panels, one per compressor that houses the pressure transmitters. Pressure process lines are tubed from the relevant measuring port on the compressor to a central gauge board where the pressure transmitters are located. The pressure transmitters are then wired to the Control Panel. Each compressor is equipped with a gauge panel that has its own stand and plinth.
 - o Compressor local instrumentation to include the various compression stage pressures, temperatures, and cooling water flow meter.
 - Associated pipework, valves, fittings and accessories.

2. SUPPORTING CLAUSES

2.1 SCOPE

The Tender Technical Evaluation Strategy defines the following criteria:

- Mandatory Evaluation Criteria at tender evaluation
- · Qualitative Evaluation Criteria

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• Mandatory Criteria before tender award

- The responsibilities of the technical evaluation team members
- Acceptable and Unacceptable Qualifications

Once the Tender Technical Evaluation Strategy has been authorised, no alterations or modifications to the technical evaluation criteria shall be permitted.

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 applies to the Drakensberg Blowdown Compressors Replacement Project.

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] 32-1033 Eskom Procurement and Supply Chain Management Policy
- [3] 32-1034 Eskom Procurement and Supply Chain Management Procedure

2.2.2 Informative

- [4] 240-53113685 Design Review Procedure
- [5] 240-53114026 Project Engineering Change Management Procedure

2.3 DEFINITIONS

2.3.1 Classification

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

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2.4 ABBREVIATIONS

Abbreviation	Description
EDWL	Engineering Design Work Lead
OEM	Original Equipment Manufacturer
PLC	Programmable Logic Controller
RTD	Resistance Temperature Detector
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

Engineering Design Work Lead (EDWL): The EDWL is responsible for the compilation of the tender technical evaluation strategy document.

Functional Responsibility: The Functional Responsible Person ensures that the document is fit for purpose before submitting for authorisation.

Senior Manager: Performs a review of the document for alignment to business strategy, policy, objectives and requirements upon authorisation.

2.6 PROCESS FOR MONITORING

The process for monitoring will be governed by the Design Review Procedure [4].

Any changes to this document will be performed as per the Project Engineering Change Management Procedure [5].

2.7 RELATED/SUPPORTING DOCUMENTS

Refer to Section 2.2.

3. TENDER TECHNCIAL EVALAUTION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

Mandatory Technical Evaluation Criteria on <u>Tender Closing</u> (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 shall not be further evaluated against Qualitative Criteria.

Qualitative Technical Evaluation Criteria on <u>Tender Closing</u> 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 70%.

Mandatory Technical Criteria on <u>Contract Award</u> (gatekeeper), is a gatekeeper criterion which shall be supplied as a mandatory returnable for tender compliance prior to contract negotiation.

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The scoring table is as follows:

Score	(%)
5	100
4	80
2	40
0	0

3.2 TET MEMBERS

Table 1: TET Members

TET number	TET Member Name	Designation	Discipline
TET 1		Chief Engineer Asset Management	Mechanical
TET 2		Senior Technician A&A	Mechanical
TET 4		Senior Technologist C&I	C&I
TET 5		Technologist A&A Electrical	Electrical
TET 6		Senior Technologist A&A Electrical	Electrical
TET 7		Senior Technician Civils	Civils

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3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 2: Mandatory Technical Evaluation Criteria on Tender Closing

	Mandatory Technical Criteria Description	Tender Returnable	Motivation for use of Criteria
1.	Tenderer must be an OEM and provide proof thereof. In the case where the tenderer is not an OEM, proof of authorisation by the respective OEM for the equipment used in the Works must be provided in a form of a licence agreement.	OEM's confirmation letter or Letter of Agreement between OEM and Contractor (Licence Agreement).	To ensure that work is carried out in line with an OEM design, in order to guarantee integrity of designs.
2.	Proven Track record of proposed Technology	List of projects/sites/customers where the proposed type of compressor is used. List must include contactable references at each project/site.	The compressors installed need to have a proven track record of reliable operation in similar applications.

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3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 3: Qualitative Technical Evaluation Criteria on Tender Closing

		Qualitative Technical Criteria Description	Tender Returnable	Criteria Weighting (%)	Score	Criteria Sub Weighting (%)
1.	EXPE	ERIENCE		10%		
	·		Tenderer submit project references. As a minimum the reference list	5 Projects	5	70
	Information. Tenderer produces a track record of	must contain:	3-4 Projects	4		
		completed projects consisting as a minimum of design, installation, testing and commissioning of compressed	Contact Person(s)	1-2 Projects	2	
	air systems. In case the Tenderer intends to subcontract or form a joint venture, a letter of agreement, together with a track record must be produced.	ntract	0 Projects	0		
	1.2	Years of experience in engineering.	Tenderer submits the company	5 Years	5	30
			established date and detail of experience.	3-4 Years	4	
			ехрепенсе.	1-2 Years	2	
				0 Years	0	
2.	TECH	INICAL SCHEDULE A&B COMPLIANCE		80%		
	2.1	Compliance to scope of work, standards and	Completion of the Technical	Schedule A&B score: 80%-100%	5	100
		regulations, intent to undertake full scope of work.	Schedule A&B.	Schedule A&B score: 70%-79%	4	
				Schedule A&B score: 40%-69%	2	
				Schedule A&B score: 0%-39%	0	

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3.	SPECIFICATIONS & APPROVAL/LISTING		10%		
	3.1 Technical detail and approval/listing of the equipment	Tenderer supplies datasheets	Datasheets of all 29 items supplied	5	100
	for the Blowdown Compressor System: 1. Compressor 2. Electrical Specification of Motor 3. Pneumatic Panel 4. Flexible Piping 5. Steel Piping 6. Pressure Transmitters (with digital output)		Number of datasheets supplied: (Less than 29 but more or equal to 20)	4	
			Number of datasheets supplied: (Less than 20 but more or equal to 1)	2	
	 Air Filters Oil Filters Isolating Valves Non-Return Valves Cabling Pressure Gauges Solenoid Valves Pneumatic valves Closed Loop Cooling Water Pump Closed Loop CW Heat exchanger Closed Loop CW Air Receiver for pressure damping Resistance Temperature Detector – PT100 Flow meter PLC Analogue Input and Output Modules Digital Input and Output Modules Communication Modules Relays Terminal Blocks Control Panel Enclosures Circuit Breakers Network Switch 		No datasheets supplied	0	
	29. NETWORK SWITCH		TOTAL: 100		

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Table 4: Mandatory Technical Criteria Before Negotiations

	Mandatory Technical Criteria Description	Tender Returnable	Motivation for use of Criteria
3.	The detail designs in terms of this Contract are to be executed by a qualified professional engineer or technologist for each discipline (Mechanical, C&I, Electrical and Civil) who is a member of Engineering Council of South Africa (ECSA).	Copies as proof of registration with ECSA for the following disciplines, accompanied by the respective CV of each individual: Registered Pr Eng (Mech) or Pr Eng Tech (Mech) Registered Pr Eng (Elec) or Pr Eng Tech (Elec) Registered Pr Eng (C&I) or Pr Eng Tech (C&I) Registered Pr Eng (Civil) or Pr Eng Tech (Civil)	South African requirement for all individuals performing engineering work.

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3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

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

X – REQUIRED ATTENDANCE

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3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	Alternative solutions with the same or better performance.

Table 7: Unacceptable Technical Risks

Risk	Description
1.	Exclusions of scope as detailed in the employers' requirements.

3.6.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description	
1.	Accept deviation with technical qualification.	

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description	
1.	Deviation without technical qualification not accepted.	

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4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
	Chief Engineer - Asset Management (EDWL Supervisor)	1 Seller
	Senior Technologist C&I	2025/09/17
	Technologist A&A Electrical	De
	Senior Technologist A&A Electrical	Kron
	Senior Technician Civils	Deformedian

5. REVISIONS

Date	Rev.	Compiler	Remarks
	0	M Saulse	Document created.
	1	R Marr	Revised according to comments received
	2	R Marr	Revise Mandatory Technical Evaluation Criteria
	3	M Saulse	Revise Mandatory Technical Evaluation Criteria
	4	M Saulse	Revised Mandatory Technical Evaluation Criteria

6. DEVELOPMENT TEAM

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

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R Marr

7. ACKNOWLEDGEMENTS

None