Eskom	Strategy	Engineering

Title:	**Camden PS - Tender Technical Evaluation Strategy for the Design and Installation of Units 1-8 Essential Measurement Display (Field Instrumentation and Cabling)**	Unique Identifier:	**240-156637333**
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Compiled by	Functional Responsibility	Authorised by
.....	.....	p.p .....
N Sibiya	**S Mkhithi**	**M Mathabatha**
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Date: 02/09/2022	Date: 03/09/2022	Date: 07/09/2022

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TABLES

1. INTRODUCTIONZ

The Fossil Fuel Firing Regulations (FFFR) was authorised in July 2012. The FFFR has requirements pertaining to the display of essential instrumentation/process parameters to the boiler operator.

The FFFR states that, “The design of the operator interface shall be such that the likelihood of **common cause, common mode** and **dependant failures** shall prevent the loss of the display of essential instrumentation to the **Authorised Boiler Operator**”.

In order to comply with the FFFR and to eliminate risk to the Units in the future, a physically separate means of indication will be installed for display of essential instrumentation/process parameters to the unit operator, which will be available in the case of total loss of server based Human Machine Interface (HMI)

2. SUPPORTING CLAUSES

2.1 SCOPE

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 applicable to Units 1-8 Essential Measurement Display – Technical Specification Report (Field Instrumentation and Cabling) project at Camden 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] 240-168966153, Generation Tender Technical Evaluation Procedure

[2] 240-153354241 – Camden PS Units 1-8 Essential Measurement Display – Technical Specification Report (Field Instrumentation and Cabling)

[3] 383-CMDN-AABB-D00138-9 - Camden PS Essential Measurement Display Technical Specification End-of-Phase Review Report

[4] 383-CMDN-BEEC-D00035-8 – Camden Units 1-8 Essential Measurement Display – Technical Specification Report

2.2.2 Informative

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
C&I	Control and Instrumentation
DCS	Distributed Control System
HMP	Human Machine Panel
PLC	Programmable Logic Control
SoW	Scope of Work
TET	Technical Evaluation Team

2.5 ROLES AND RESPONSIBILITIES

As per 240-168966153, Generation Tender Technical Evaluation Procedure

2.6 PROCESS FOR MONITORING

The primary process for monitoring will be governed by Design Review Procedure (240-53113685), this entails ensuring that the design achieves the requirements set out in the document. Any changes to this document will be performed as per the Project Engineering Change Management Procedure (240-53114026)

2.7 RELATED/SUPPORTING DOCUMENTS

Refer to section 2.2.1

3. TENDER TECHNCIAL EVALAUTION STRATEGY

3.1 TECHNICAL EVALUATION THRESHOLD

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 or not 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 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%. The following scoring method will be used:

Table 1: Technical Scoring Methodology

SCORE	PERCENTAGE (%)	DESCRIPTION
5	100	**COMPLIANT** • Meet the technical requirement(s) AND, • No foreseen technical risk(s) in meeting technical requirements
4	80	**COMPLIANT WITH ASSOCIATED QUALIFICATIONS** • Meet the technical requirement(s) with, • Acceptable technical risks AND/OR; • Acceptable exceptions AND/OR; • Acceptable conditions
2	40	**NON-COMPLIANT** • Does not meet the technical requirement(s) AND/OR Unacceptable technical risk(s) AND/OR; • Unacceptable exceptions AND/OR; • Unacceptable conditions
0	0	**TOTALLY DEFICIENT/NON-RESPONSIVE**

3.2 TET MEMBERS

Table 2: TET Members

TET number	TET Member Name	Designation
TET 1	Ntokozo Sibiya	C&I Snr Engineer
TET 2	Grace Mandlazi	C&I Snr Advisor Tech Support
TET 3	Sabelo Mthethwa	Turbine System Engineer

3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

Table 3: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Tenderer shall provide a proof of (T2000 or ME or MEA) and T3000 Certificates.	• Tender Returnable - Tenderer to provide certified copies as proof. **Note:** Certified should indicate less than 6 months after tender closing date.	Contractor Work Knowledge of DCS.
2.	To be registered Professionally with ECSA for design purposes.	• Tender Returnable – Tenderer to provide proof of registration certificate with ECSA. **Note:** Certified should indicate less than 6 months after tender closing date.	Contractor Work credibility

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 4: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)
1.	**C&I**			**100**
	1.1	C&I Work Method Statement – A statement from the Contractor detailing how they plan to execute the work. What equipment and resources will be used and how they will be utilised by the Contractor to complete the work successfully.	Tender returnable – Work Method Statement Narrative.	10%
	1.2	Proposed work plan: - Indicating intent to undertake full scope of work - Activities divided up realistically in the schedule - Timelines realistic for execution of activity	Tender returnable – Preliminary Project schedule showing key deliverable dates and Proposed Work plan indicating intent to undertake full scope of work)	15%
	1.3	Qualification of cable pullers (NQF level 4/Matric involved in similar work & minimum 2 years' experience cable pulling.	Tender returnable – Certified copy of matric certificate and CV **Note:** Certified should indicate less than 6 months after tender closing date.	25%
	1.4	Qualification of supervisor (Electrical light current NQF level 6 or more) involved on similar works (at least 3 years relent experience)	Tender returnable – Certified copies of qualifications and CV **Note:** Certified should indicate less than 6 months after tender closing date.	25%
	1.5	List a minimum of 3 projects with the scope of work that reflects work done on a Siemens DCS or PLC of which 1 must be on the Siemens T2000/T3000 DCS or hardwiring HMP system and setting it up.	Tender returnable – List of similar projects or work executed (Submit signed reference letters or Order	25%

			numbers or Contract numbers or completion certificates.)	
				TOTAL: 100

Qualitative Technical Evaluation Criteria		**Score [0,2,4,5]**	**Scoring Criteria**
1.	C&I Work Method Statement – A statement from the Contractor detailing how they plan to execute the work. What equipment and resources will be used and how they will be utilised by the Contractor to complete the work successfully.		5 = Work Method Statement submitted with an execution plan, list of resources and equipment to be used and a narrative explaining how resources and equipment will be used to perform the work. 4 = Work Method Statement submitted missing one of the following: execution plan, list of resources, and list of equipment or a narrative explaining how resources and equipment will be used to perform the work. 2 = Work Method Statement submitted missing three of the following: execution plan, list of resources, and list of equipment and/or a narrative explaining how resources and equipment will be used to perform the work. 0 = Work Method Statement is not part of the submission.
2.	Proposed work plan: - Indicating intent to undertake full scope of work - Activities divided up realistically in the schedule - Timelines realistic for execution of activity		5 = All three conditions of proposed work plan have been met. 4 = Only two conditions of proposed work plan have been met. 2 = Only one conditions of proposed work plan have been met. 0 = None of the conditions of proposed work plan have been met.

Qualitative Technical Evaluation Criteria		**Score [0,2,4,5]**	**Scoring Criteria**
3.	Qualification of cable pullers (NQF level 4/Matric involved in similar work & 2 years' experience in cable pulling), including		5 = CV and certified qualification provided with more than 2 (two) and more years of experience. 4 = CV and certified qualification provided with more than 2 (two) years of experience. 2 = CV and certified qualification provided with more than 1 (one) year of experience. 0 = No CV and certified qualification provided
4.	Qualification of supervisor (Electrical light current NQF level 6 or more) involved on similar works (at least 3 years relent experience)		5 = CV and certified qualification provided with more than 3 (three) and more years of experience. 4 = CV and certified qualification provided with more than 2 (two) years of experience. 2 = CV and certified qualification provided with more than 1 (one) year of experience. 0 = No CV and certified qualification provided
5.	List a minimum of 3 projects with the scope of work that reflects work done on a Siemens DCS or PLC of which 1 must be on the Siemens T2000/T3000 DCS or hardwiring HMP system and setting it up.		5 = More than three signed reference letters provided with contact details or order numbers or contract numbers or completion certificates. 4 = Three signed reference letters provided with contact details or order numbers or contract numbers or completion certificates. 2 = Two references provided with contact details or order numbers or contract numbers or completion certificates. 0 = No references submitted.

3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Qualitative Criteria Number	TET 1	TET 2	TET 3
1.1	X	X	X
1.2	X	X	X
1.3	X	X	X
1.4	X	X	X
1.5	X	X	X

X – REQUIRED ATTENDANCE

O – OPTIONAL

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.	No experience in a C&I industrial plant 240-156637333

3.6.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	None

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	None

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Mokgoba Mathabatha	Engineering Manager
Sonto Mkhithi	C&I Engineering Manager
Grace Mandlazi	C&I Snr Advisor Tech Support
Sabelo Mthethwa	Turbine Engineer
Nompumelelo Shube	Project Coordinator

5. REVISIONS

Date	Rev.	Compiler	Remarks
27 July 2020	1.0	N Sibiya	Final report
18 August 2022	2.0	N.D Sibiya	Reissue review Technical Evaluation Strategy
02 September 2022	3.0	N.D Sibiya	Comments addressed

6. DEVELOPMENT TEAM

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

- Ntokozo Sibiya