

Strategy

Engineering

Title: Tender Technical Evaluation
Strategy for Refurbishment of
the Kendal Water treatment
plant

SS Sulliman.

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1. INTRODUCTION

The tender evaluation strategy is developed for the purpose of obtaining a Contractor to Refurbishment of the Demin and CPR plants in the Water treatment plant.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document covers the technical evaluation criteria to be utilised for the process of evaluating the tender submissions for the refurbishment of the Demin and CPR plants in the WTP.

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 the WTP Kendal 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] 240-44682850: PCM Provide Engineering During Project Sourcing
- [3] 32-1033: Eskom Procurement and Supply Chain Management Policy
- [4] 32-1034: Eskom Procurement and Supply Management Procedure

2.2.2 Informative

[5] Scope of works for Refurbishment of the Demin and CPR plants in the Water treatment plant

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
CPR	Condensate polishing regeneration
Demin	Demineralisation
SANS	South African National Standards
TET	Technical Evaluation Team
WTP	Water Treatment Plant

2.5 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

2.6 PROCESS FOR MONITORING

The primary process that shall be used for monitoring the application of this document is 240-48929482: Tender Technical Evaluation Procedure.

2.7 RELATED/SUPPORTING DOCUMENTS

[6] 240-53716746: Tender Technical Evaluation Report Template

[7] 240-53716712: Tender Technical Evaluation Results Form Template

[8] 240-53716726: Tender Technical Evaluation Scoring Form Template

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%.

Table 1: Technical Scoring Methodology

SCORE	PERCENTAGE (%)	DESCRIPTION
5	100	Meet the technical requirement(s) AND, No foreseen technical risk(s) in meeting technical requirements
4	80	Meet the technical requirement(s) with, Acceptable technical risks AND/OR; Acceptable exceptions AND/OR;

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		Acceptable conditions
		NON-COMPLIANT
2	40	 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	Jack Lekalakala	Engineering in training - WTP
TET 2	Sumayyah Sulliman	Chief Chemical Engineer Prof Eng
TET 3	Noko Pheta	RT&D Snr Advisor Corrosion
TET 4	Hassen Cassim	RT&D Snr Advisor Corrosion
TET 5	Keith Northcott	Senior Consultant Engineering
TET 6	Teboho Moleli	C&I system engineer
TET 7	Keikantse Pule	RT&D Snr Advisor Chemistry
TET 8	Morongwa Mogale	Kriel Power station

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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
1.1 EXPERIENCE OF CORROSION PROTECTION CONTRACTOR Provide verifiable references and sources of evidence that the product supplier and applicator have successfully applied both internal and external corrosion protection system to plant at least equal to the quantity of scope as defined in the enquiry and Scope of Work (SOW) documents within the last 5 years.	The listing shall include the company name where the work was done, project title/description and contact details of responsible engineer/person	This criteria is required that contractor is competent in corrosion protection since this forms a major part of the works.
1.2 ISO 3834-2 Certification (both pages) Both pages of the ISO 3834-2 certificate. The name of the Contractor or sub-contractor is the registered name on the ISO 3834-2 certificate that is submitted. The group of material welded as per the required PQR is indicated on the ISO 3834-2 certificate.	The Contractor submits proof of BS EN ISO 3834-2 certification with the tender.	This criteria is required to ensure that the contractor is competent to do welding on the required scope of work

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 4: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
2	Contractor Experience		20	
2.1	CONTRACTOR EXPERIENCE The main contractor and/or intended subcontractor(s) as applicable and listed in the Invitation to Tender, Annexure B - Tenderer's Particulars, that will be performing the greater quantity of the site work must	At least four (4) previous or current projects that meet the minimum requirements should be referenced and submitted. For each project that is referenced the following must be included in the summary as a minimum: 1. Title with short description of the project scope of work (2.5%)		40

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	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	have experience in water treatment related plant	2. Contract or order number (2.5%)		
	refurbishment and/or installation and commissioning projects.	3. Signed agreement page(s) or signed completion certificate(s) (2.5%)		
	projectio.	4. Client name(s) and contact details (2.5%)		
		5. Start date and end date of contract (2.5%)		
2.2	COMPANY ORGANOGRAM	Submission of Organogram indicating the office staff and site staff.		20
	Company organogram must reflect the current status of company. Organogram should indicate as a minimum the site supervisor, site artisans, welding staff, quality, mechanical or chemical engineers, draughtsman	The Contractor clearly indicates in the submitted organogram who the appointed site manager is, as well as other key positions.		
2.3	PERSONNEL CV's OF ALLOCATED PERSONNEL	Shall indicate professional staff with more than 5 years experience in work related		20
	Company must provide CV's showing number of experience and references.	environment. This person must be a chemical /mechanical engineer who will do the commissioning and performance tests. (10%)		
	The CV containing proof of qualifications with copies of certificates, diplomas, degrees, etc. are submitted.	Shall indicate management / supervisory staff with more than 2 years experience in work related environment.(10%) The supervisor must have a ND.		
	CV containing details of work experience and valid	3. Shall indicate the safe and quality supervisor. (10%)		
	references are submitted as proof of experience.	4. Shall indicate all the staff involved in welding as well (10%)		
2.4	PROJECT PROGRAMME The main contractor outlines their proposed project	A detailed project programme is submitted that indicates all major activities and milestones and includes the following as a minimum:		20
	programme which fits within the proposed contract period stipulated in the Employer's enquiry document.	1. Project Start date (+4%)		
		2. Procurement lead times (+4%)		
		3. Major milestones including installation and commissioning for each section as outlined on the Employer's enquiry document (+4%)		
		4. Project Completion date (+4%)		
		5. In Microsoft (MS) Projects format (+4%)		
3.	Corrosion protection requirements		40	
3.1	CORROSION PROTECTION SYSTEM INSPECTOR	CV with copies of the appointed coating inspector's relevant qualification(s) must be		10
	The intended corrosion protection inspector(s) for corrosion protection, must be qualified to SAQCC (Corrosion Protection) and have either one of the following:	submitted.		

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	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	Coating Inspectors Level 1 (shop inspections)			
	2. Coating Inspectors Level 2 (site inspections)			
	3. NACE Coating Inspection Programme (CIP)			
	4. Other equivalent qualification			
3.2	PRODUCT DATA SHEETS	Datasheets for all products to be supplied		15
	Company must provide datasheets for all products as	As a minimum supply of individual product data sheets for:		
	per the scope, i.e. Coating products, rubber lining, adhesives & tack coats.	(1) Membrane/primer/adhesive materials.		
	auriesives a laux coats.	(2) Mortar/cement/bedding/setting/grout/pointing materials.		
		(3) Tile material.		
		(4) Steam cured Butyl Rubber Lining		
		(5) Twin Pack Polyamide Cured Epoxy		
		(6) High Build Re-coatable Polyurethane Acrylic		
		(7) Twin Pack, High Build (≥85 % volume solids content), Surface Tolerant Epoxy		
3.3	METHOD STATEMENTS	Detailed Method Statements of the minimum evaluation criteria requirements		30
	Company must provide a detailed methodology and equipment list (number and capacity) required for effective;			
	(a) Grease and/or soluble salts decontamination and washing.			
	(b) surface preparation by blast cleaning,			
	(c) The parameter setups for blasting techniques i.e. boom/lance.			
	(d) Methods for dust and debris removal, maintaining and ensuring cleanliness between primer, adhesive and rubber sheet shall be described.			
	(e) Flange arrangement.			
	(f) Curing.			
	(g) All test and inspection interventions.			
	(h) specified/required environmental conditions.			

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	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
3.4	QUALITY CONTROL PLAN	Detailed QCP including the minimum evaluation criteria requirements		15
	Contractor details all inspections and tests with the listing of the relevant, local (SANS) or international standards, as well as the required acceptance criteria. The QCP shall align with all info as required in 3.2 and 3.3 above.			
	Inspections during lining application shall at least cover;			
	(a) surface preparation,			
	(b) environmental parameters,			
	(c) rubber properties/batch certificate i.e. tensile strength, thickness, hardness,			
	(d) adhesion, continuity and visual tests.			
3.5	ASSESSMENT OF THE CONTRACTORS	Eskom assessment at contractor's / subcontractor's site in order to complete Annex B		10
	If the Contractor was not previously assessed by Eskom An assessment of the contractor must be conducted of both internal and external corrosion protection applicators using the criteria in Annex A of the Eskom internal protection standard (240-101712128) and Eskom external corrosion protection standard (240-106365693), and record the assessments using Annex B of the same standards, as a basis the applicator must have a rating of 3 (4.4.2 c of the standard). The applicator's work place will be assessed by Eskom for competence. If the Contractor has been assessed by eskom - then the previous rating will be used			
3.6	SCOPE OF WORK COMPLIANCE	Letter either stating no deviations, or a list of deviations		20
	The contractor fully complies with the NEC3 ECC contract conditions and with the technical scope as set out in the enquiry document. If deviations are listed - the deviations will be evaluated to determine if it is a risk to the project.			
4.	Welding work		20	
4.1	WELDING CONTRACTOR WELDING			35

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	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	QUALIFICATIONS Complete/Updated list of the welding contractor's welders qualifications, qualified to BS EN 9606.	Complete/Updated list of the welding contractor's welders qualifications, qualified to BS EN 9606.		
4.2	WELDING CONTRACTORS IWT/IWE CERTIFICATE Proof of the welding contractor's IWT/IWE certificate. If subcontracted, proof of the arrangement between the IWT/IWE and the company.	Proof of the welding contractor's IWT/IWE certificate. If subcontracted, proof of the arrangement between the IWT/IWE and the company.		30
4.3	PROOF OF THE WELDING INSPECTORS QUALIFICATIONS Proof of the welding inspector's qualifications, i.e. SAIW Welding and Fabrication Inspector Level 2 or IIW International Welding Inspector: Comprehensive (IWI- C) or IIW International Welding Inspector: Standard (IWI-S).	Proof of the welding inspector's qualifications, i.e. SAIW Welding and Fabrication Inspector Level 2 or IIW International Welding Inspector: Comprehensive (IWI- C) or IIW International Welding Inspector: Standard (IWI- S).		35
5.	C&I work		20	
5.1	C&I EXPERIENCE Detailed project organogram with responsibility matrix and years of panel manufacturing, wiring and termination, cabling and tubing experience (5 years at least). Include technical team names on the organogram and individual CVs in the tender submission.	1. Qualified and experienced panel manufacturing, wiring and termination, cabling and tubing technical person has to be used to execute the work. 2. Personnel need to have worked in similar environment and evidence has to be provided.		25
5.2	TESTING OF ANALYSERS AT ESKOM RT&D The analysers that will be supplied must have been tested, evaluated, and approved by Eskom Research, Testing and Development (RT&D). If not evaluated, the analysers should be made available for evaluation for a period of at-least 6 weeks. The evaluation should be complete before the tender closing date.	Proof must be submitted that all of the proposed Silica, Sodium, Turbidity, conductivity, TOC and pH type analysers have been tested, evaluated, and approved by Eskom RT&D.		20
5.3	AFTER-SALE SUPPORT The Contractor of the analysers and instrumentation	At least three (5) previous or current after-sale jobs (calibration and maintenance of analysers) should be referenced. For each job that is referenced the following must be included:		15

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	Qualitative Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
	should be availability for after-sale support (calibration and maintenance of analysers and instrumentation) for a period of at least 10 years after installation.	1. Contract number (+1%) 2. Client name(s) and contact details (+1%) 3. Calibration/Maintenance certificates (+1%)		
5.4	ANALYSER EXPERIENCE The main contractor and/or intended subcontractor(s) (if applicable) that will be responsible for the installation and commissioning of the analysers must have experience in the supply, installation and service of water and steam sample analytical systems and equipment.	At least four (4) previous or current projects that meet the minimum requirements should be referenced. For <u>each project</u> that is referenced the following must be included in its summary as a minimum: 1. Title and short description of the project (+1%) 2. Contract number (+1%) 3. Signed agreement page(s) or signed completion certificate(s) (+1%) 4. Client name(s) and contact details (+1%) 5. Start date and end date of contract (+1%) Note that records and references may be verified.		20
5.5	INSTRUMENTATION AND ANALYSER WARRANTIES All of the proposed analysers and instrumentation must have a minimum three (3) year factory warranty on all electronic equipment.	The Contractor submits proof, either in writing or specified on the product brochures, that all of the proposed analysers and instrumentation have a minimum three (3) year factory warranty on all electronic equipment.		20

3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3/4/5	TET 6	TET 7	TET 8
1.1 EXPERIENCE OF CORROSION PROTECTION CONTRACTOR	Х	Х	Х			
1.2 ISO 3834-2 Certification (both pages)						Х
Qualitative Criteria Number	TET 1	TET 2	TET 3	TET 4	TET 5	
2. CONTRACTORS EXPERIENCE						

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2.1 Contractors Experience	Х	Х		
2.2 Company organogram	Х	X		
2.3 Personnel CV's of allocated personnel	Х	Х		
2.4 Project Programme	Х	X		
3. CORROSION PROTECTION REQUIREMENTS		<u> </u>		
3.1. Corrosion Protection System Inspector	X	Х	Х	
3.2. Product Data Sheets	Х	Х	Х	
3.3. Method statements for work	X	Х	Х	
3.4. Quality Control Plan	X	Х	Х	
3.5. Assessment of the contractors	X	Х	X	
3.6. Scope of Work Compliance	X	Х	Х	
4. WELDING WORK REQUIREMENTS				
4.1 Welding contractors welding qualifications				X
4.2 Welding contractor's IWT/IWE certificate				X
4.3 Proof of the welding inspector's qualifications				X

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5. C&I WORK REQUIREMENTS				
5.1. Control & Instrumentation Experience	X	X	Х	
5.2 Testing of analysers at Eskom RT&D	X	X	X	
5.3 After-sale Support	X	X	Х	
5.4 Analyser Experience	X	X	Х	
5.5 Instrumentation and Analyser Warranties	X	X	Х	

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3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	None
2.	

Table 7: Unacceptable Technical Risks

Risk	Description
1.	None

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

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4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation	Signature
Noko Pheta	RT&D Snr Advisor Corrosion	
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Teboho Moleli	C&I system engineer	
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5. REVISIONS

Date	Rev.	Compiler	Remarks
February 2022	0	S Sulliman	Final Draft

6. DEVELOPMENT TEAM

Teboho Moleli

Noko Pheta

Keith Northcott

7. ACKNOWLEDGEMENTS

N/A