



Tender Evaluation

Engineering

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1. INTRODUCTION

Tutuka Power Station is located within the Gert Sibande district; in the Lekwa Local municipality, approximately 21 km northeast of the Standerton town in the Mpumalanga province and adjacent to the Seriti owned New Denmark Colliery.

According to the Engineering Profession Act (No 46 of 2000), "Engineering must therefore be carried out competently, responsibly and ethically; use available resources efficiently; be economic; safeguard health and safety; be environmentally sound and sustainable; and generally manage risks throughout the entire lifecycle of a project, product or system.

The purpose of this document is to develop the mandatory and qualitative technical evaluation criteria required to place a Multidisciplinary Professional Services Contract for Engineering Resources at Tutuka Power Station. The engineering resources to render professional services for a 12 months' duration, and be equipped with:

- a. BSc. /BEng degree (i.e. Civil, Mechanical and Chemical),
- b. Minimum 5 years' power plant work experience, and
- c. Registered as Candidate Engineers with ECSA.

Technical evaluation criteria will be used to evaluate all tenders received from the Service Provider(s) in response to the Enquiry.

2. SUPPORTING CLAUSES

2.1 SCOPE

Contractor refers to the *Client's Scope of Work for Multidisciplinary Professional Services Contract for Engineering Resources at Tutuka Power Station [15ENG GEN-2067]* for the detailed scope of work.

The Contractor is to render a multidisciplinary professional services contract for engineering resources. The required professional engineering resources:

- a. To service the Client's Civil Engineering, Turbine Engineering and Process Engineering.
- b. Include 4x Civil Engineers, 6xTurbine Engineers and 2 Process Engineers.
- c. Must be equipped with a minimum qualification in BSc. /BEng degree in Civil, Mechanical /Chemical, and Chemical Engineering
- d. Must be equipped with minimum 5 years' power plant work experience, and be registered as Candidate Engineers with ECSA.

The above engineering resources take the full professional, technical responsibility and accountability of the Civil, Turbine and Process Engineering plants. Acquiring these resources to ensure that the Client's Civil, Turbine and Process Engineering Plant complies to be safely operated and maintained.

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As part of the tender submission, Contractor to submit a list of engineering candidates shortlisted to attend the Client's compulsory interview process. Contractor must identify the engineering candidates suitable to execute the required works for the Client's Service Managers to approve and conduct compulsory interview sessions with the individual engineering candidates. If the Tenderer/Contractor does not submit the list of successful engineering candidates, that Tender/Contractor will be disqualified from the tendering process. If the engineering candidates fail to pass the Client's interviews, Contractor to seek and submit respective list of engineering candidates within 3 days for the Client's Service Managers to approve and conduct compulsory interview sessions with the individual engineering candidates. Successful engineering candidates to immediately commence with their duties, after Client's Service Managers have conducted interviews and issued interview results to the Contractor.

- a) All technical queries to be directed to the Client's Service Managers.
- b) Tenderer/Contractor to provide tender returnable submissions in accordance with the Client's Technical Evaluation Strategy [15ENG GEN-2068] and Scope of Work [15ENG GEN-2067].

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 all appointed and involved in the technical tender evaluation of tenders received from the Service Provider(s) in response to providing a Multidisciplinary Professional Services Contract for Engineering Resources at Tutuka 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] 15ENG GEN-2067: Scope of Work for Multidisciplinary Professional Services Contract for Engineering Resources at Tutuka Power Station
- [2] 240-48929482: Tender Technical Evaluation Procedure
- [1] 240-53716712: Technical Evaluation Results
- [2] 240-53716726: Technical Scoring Form
- [3] 32-1034: Procurement and Supply Chain Management Procedure

2.2.2 Informative

- [4] ISO 9001: 2008 Quality Systems Standard
- [5] OHSA: Occupational Health and Safety Act No. 85 of 1993 Health and Safety requirements: Construction 2014

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2.3 DEFINITIONS

Terminology	Description
Client	Tutuka Power Station
Civil Engineering Resources	Four Candidate Engineers with a BSc. /BEng in Civil Engineering, registered with ECSA and have power plant work experience related to the design, construction, and asset management of Civil and Structural Engineering infrastructure i.e. steel, concrete, stormwater, sewage, dams, roads, railway, buildings, etc.
Contractor	An <i>Employer</i> appointed by the Client to source Engineering Resources that meet the technical requirements of providing the Multidisciplinary Professional Services contract for Tutuka Power Stations, as per the Client's scope of work [15ENG GEN-2067]
Turbine Engineering Resources	Six Candidate Engineers with a BSc. /BEng in Mechanical/Chemical Engineering, registered with ECSA and have power plant work experience related to the fundamental role of optimisation, and enhancement, where possible, of the Energy Conversion process at a power station. This applies to the water & steam, condensing, feed heating, cooling water, turbo-generator effectiveness and auxiliary power.
Process Engineering Resources	Two Candidate Engineers with a BSc. /BEng in Chemical Engineering, registered with ECSA and have power plant work experience related to the fundamental role of optimisation, and enhancement, where possible, of the Energy Conversion process at a power station. This applies to the coal, milling, air supply, combustion, heat transfer, water & steam, condensing, feed heating, cooling water, turbo-generator effectiveness and auxiliary power.

2.4 CLASSIFICATION

- a. **Confidential:** the classification given to information that may be used by malicious/opposing/hostile elements to **harm** the objectives and functions of Eskom Holdings Limited.

2.5 ABBREVIATIONS

Table 1: Abbreviations

Abbreviation	Description
CV	Curriculum Vitae
ECSA	Engineering Council of South Africa
QCP	Quality Control Plan
TET	Technical Evaluation Team

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2.6 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

2.7 PROCESS FOR MONITORING

The tender committee will adjudicate the tender evaluation and contract appointment

2.8 RELATED/SUPPORTING DOCUMENTS

As per section 2.2

3. TENDER TECHNICAL EVALUATION STRATEGY

The evaluation criteria will be based upon a two-step process:

Mandatory Criteria Evaluation

All TET members as defined in the Tender Technical Evaluation Strategy (and specifically TET member responsibilities) shall independently evaluate each tender in terms of compliance to the defined Mandatory Evaluation Criteria. Each TET member shall provide an individual scoring form on the compliance / non-compliance of all tenderers' responses to the Mandatory Evaluation Criteria. Each TET member shall provide clear justification(s) for each Mandatory Criteria evaluated as non-compliant ('NO'). All individual scoring forms shall be evaluated to check for consistency in scoring of the Mandatory Evaluation Criteria. Should there be inconsistency in the scoring, an internal clarification meeting shall be conducted with all TET members (who performed the evaluation) in the presence of the Commercial Representative. This meeting shall aim to jointly establish which of the tenderers qualify for the next phase of Qualitative Technical Evaluation. In the case where no tenderer meets all Mandatory Evaluation Criteria this shall be formally escalated to the Commercial Representative who shall guide the subsequent process. All meeting minutes shall be recorded and distributed to the Commercial Representative and included in the Tender Technical Evaluation Report.

Qualitative Criteria Evaluation

Tenderers that have met all the Mandatory Evaluation Criteria shall be evaluated against the Qualitative Criteria as defined in the Tender Technical Evaluation Strategy. The scoring of qualitative criteria shall be based on the degree of achievement by the tenderer to meet the technical requirements. A score shall be allocated as per Table 2: Qualitative Evaluation Criteria Scoring Table, for each technical qualitative criterion. Each TET member shall populate a Tender Technical Evaluation Scoring Form [2] for each tenderer. Note: Individual Qualitative Criteria scores shall only be finalised after all clarification sessions have been concluded.

Table 2: Qualitative Evaluation Criteria Scoring Table

Score	%	Definition
5	100	COMPLIANT Meet technical requirement(s) AND; No foreseen technical risk(s) in meeting technical requirements.
4	80	COMPLIANT WITH ASSOCIATED QUALIFICATIONS Meet technical requirement(s) with;

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		Acceptable technical risk(s) AND/OR; Acceptable exceptions AND/OR; Acceptable conditions.
2	40	NON-COMPLIANT Does not meet technical requirement(s) AND/OR; Unacceptable technical risk(s) AND/OR; Unacceptable exceptions AND/OR; Unacceptable conditions.
0	0	TOTALLY DEFICIENT OR NON-RESPONSIVE
<p>Note 1: The scoring table does not allow for scoring of 1 and 3.</p> <p>Note 2: Foreseen acceptable and unacceptable risk(s), exceptions and conditions shall be unambiguously defined in the relevant Tender Technical Evaluation Strategy.</p>		

3.1 TECHNICAL EVALUATION THRESHOLD

The minimum weighted final score (threshold) required for a tender to be considered from a technical perspective is 75%.

3.2 TET MEMBERS

The technical evaluation team will be composed of a minimum of two members per discipline from the table below with at least one being professionally registered per discipline.

Table 3: TET Members

TET number	TET Member Name	Designation
TET 1	Nompumelelo Dlamini	Civil Engineering Manager
TET 2	Wilson Kudiwa	Turbine Engineering Manager
TET 3	Horatio Schreiner	Process Engineering Manager

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3.3 MANADATORY TECHNICAL EVALUATION CRITERIA

Gatekeepers identified in the tender document will be “must meet” criteria identified in tabular questionnaire form. The *Contractor(s)* tender will be assessed based upon questionnaire seeking **YES** or **NO** response from the *Contractor(s)* with no point scores or weighted averaged assigned to the response.

Response of **NO** against any criteria will be elimination of the *Contractor(s)* tender for further consideration or short listing for detailed technical evaluation. Gatekeepers will be minimum criterion elements with most significant and critical parameters applicable to the successful execution of the RFP. Table 4 lists the mandatory gatekeeper questionnaires identified for the subject RFQ.

Table 4: Mandatory Technical Evaluation Criteria

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Contractor’s list of engineering resources who have been shortlisted, as per the issued scope of work [15ENG GEN-2067], for the Client’s interview process	List of engineering resources shortlisted by Contractor stating names, qualification, and work experience.	Relevant expertise to minimize the risk and be compliant with good industry practices
2.	CV of Engineering Resources (Civil, Mechanical and Chemical) with minimum BSc. /BEng degree and 5 years’ power plant work experience.	CV stating power plant work experience and signed references, certified copy of BSc/BEng degree certificate	Relevant expertise to minimize the risk and be compliant with good industry practices
3.	ECSA certificate stating proof of Engineering Resources (Civil, Mechanical, and Chemical) being registered as Candidate Engineers with ECSA	ECSA registration number and copy of certified ECSA certificates	Relevant expertise to minimize the risk and be compliant with good industry practices

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Table 5: Qualitative Technical Evaluation Criteria

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	General		Technical returnables document	40%	
1.1	<p>An organogram showing the names, qualification, and role of the key technical resources Core crew includes but is not limited to Civil, Turbine and Chemical Engineers</p> <ul style="list-style-type: none"> • Organogram of the core crew submitted with minimum qualification in BSc/BEng in Civil, Mechanical, and Chemical Engineering = 5 points • Organogram submitted does not meet minimum core crew requirements and minimum qualifications= 2 points • Organogram of core crew not submitted = 0 points 	<p>As per Scope of Works [1] Organogram, CV including qualifications must be submitted</p>		40%	
1.2	<p>Submission of Contractor’s Method Statement specifying and showing ability of the Engineering resources performing the required works as described in the Scope of Works. Listing apparatus and demonstrating compliance and understanding of the required works.</p> <ul style="list-style-type: none"> • Method Statement details fully how scope will be met and provides comprehensive methodology of approach = 5 points 	<p>As per Scope of Work [1]</p>		60%	

		<ul style="list-style-type: none"> Method Statement does not contain methodology of approach but reiterates Employer's scope of works = 2 points No Method statement submitted = 0 points 			
2.	Civil, Turbine and Process Engineering			60%	
2.1	<p>Verifiable similar services and references of Contractor where similar professional/term services contract for engineering resources have been performed. Copy or contracts or orders to be provided as proof. The Contractor must provide accurate references that are reachable as background checks will be done before awarding the score.</p> <ul style="list-style-type: none"> >5 projects /contracts/orders= 5 points 3-4 projects/contracts/orders = 4 points 1-2 projects/contracts/orders = 2 points 0 project/contract/order = 0 points 	<p>As per Scope of Work [1] List of similar services and signed verifiable references must be submitted</p>		25%	
2.2	<p>CV of Civil Engineering resources (x4) who will execute the scope of work</p> <ul style="list-style-type: none"> Minimum 5 years' power plant work experience + ECSA registration as candidate engineers (5 points) Not submitted/design experience not relevant/Not ECSA registered (0 points) 	<p>As per Scope of Work [1] CV's, Qualifications</p>		25%	
2.3	<p>CV of Turbine Engineering resources (x6) who will execute the scope of work</p> <ul style="list-style-type: none"> Minimum 5 years' power plant work experience + ECSA registration as candidate engineers (5 points) Not submitted/design experience not relevant/Not ECSA registered (0 points) 	<p>As per Scope of Work [1] CV's, Qualifications</p>		25%	

	2.4	CV of Process Engineering resources (x2) who will execute the scope of work <ul style="list-style-type: none"> • Minimum 5 years' power plant work experience + ECSA registration as candidate engineers (5 points) • Not submitted/design experience not relevant/Not ECSA registered (0 points) 	As per Scope of Work [1] CV's, Qualifications		25%
				TOTAL: 100	

3.5 TET MEMBER RESPONSIBILITIES

Table 6: TET Member Responsibilities

Mandatory Criteria Number	TET 1	TET 2	TET 3
1	X	X	X
2	X	X	X
Qualitative Criteria Number	TET 1	TET 2	TET 3
1.1	X	X	X
1.2	X	X	X
2.1	X	X	X
2.2	X		
2.3		X	
2.4			X

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 7: Acceptable Technical Risks

Risk	Description
1.	Sub-Contracting or Partnering with another Contractor/Consulting Engineering Firm

Table 8: Unacceptable Technical Risks

Risk	Description
1.	CV of engineering resources not submitted
2.	Engineering resources not registered with ECSA as Candidate Engineers
3.	Contractor's shortlisted engineering resources suitable for the Client's interview process

3.6.2 Exceptions / Conditions

Table 9: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	None

Table 10: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Inability to execute the required works as per Scope of Work issued [1]

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
Nompumelelo Dlamini	Civil Engineering Manager
Wilson Kudiwa	Turbine Engineering Manager
Horatio Schreiner	Process Engineering Manager
Andre Krugel	Engineering Manager (Acting)

5. REVISIONS

Date	Rev.	Compiler	Remarks
03 March 2021	0	N Dlamini	Document for Review
08 March 2021	1	N Dlamini	Final Document

6. DEVELOPMENT TEAM

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

- Nompumelelo Dlamini
- Wilson Kudiwa
- Horatio Schreiner

7. ACKNOWLEDGEMENTS

N/A

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