	<p style="text-align: center;">Tutuka Power Station TE Strategy</p>	<p style="text-align: center;">Engineering</p>
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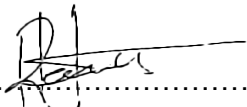

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1. INTRODUCTION

The technical evaluation is for the Domestic Electrical Circuits Maintenance Contract with the initiative to assist with excessive breakdown and corrective maintenance at Tutuka Power Station. The contract's aim is for additional resources to assist with maintenance activities which include work which require repair/replace/maintain but not limited to Light circuits, plugs circuits and HVAC filters as required at Boiler, Boiler Auxiliaries, Turbine and Turbine Auxiliaries as stipulated in Section 2.1.1

2. SUPPORTING CLAUSES

2.1 SCOPE

2.1.1 PLANT

Refers to Tutuka Power Station and associated plant, amongst others*

- All associated electrical equipment related to Units 1 to 6 Turbine, Boiler, Auxiliary Plants and buildings,
- Filter maintenance All Aircon and ventilation systems and CT Chamber plants

2.1.2 AIRCON AND CT CHAMBER FILTER MAINTENANCE SOW CONSISTS OF:

- Monitoring of pressure gauges on primary and secondary filters and reporting concerns thereof
- Removing dirty filters, clean and install or replace with new filters where needed
- Washing of dirty filters, stack on dry rack to dry, and once dry, store filters for future use
- Remove and replace damaged filter gaskets and filter clips
- Check for air leaks am' repair where necessary
- Disposing of old filters as per Employer's disposal requirements
- Plenum floors need to be washed nx-nthly
- Plant rooms floors needs to be washed monthly
- Aircon Condenser to be cleaned as required

2.1.3 ELECTRICAL MAINTENANCE ACTIVITIES

Preventative maintenance, Corrective maintenance, Routine maintenance as per PM and Employer's instruction applicable to below

- The Lighting and Plug socket outlet scope of work includes all lighting, 220V plug socket outlets and 380V plug socket outlets This encompass the complete circuit repairs from Isolator fuses in LV room to DB/Marshalling to end-point of circuit, viz, all electrical works executed will result in a sound and safe working electrical circuit
- Perform monthly inspections and report all defects to the Service Manager
- Provide assistance with implementation of modifications and projects on an "as and when required" basis

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Ensure all plant labelling e.g. sockets outlets, circuit breakers, distribution boxes and cables must be in line with the latest Employer's drawings

- Verify and assist with all associated electrical works of the Employer's drawings_
- Drawings must be up to date and "as-built", if not, it must be reported to the Service Manager
- Repair and replace LV cables, this includes cable joints for lights and plugs circuits
 - Verify and correct all securing of cable glands
 - Contractor to arrange COC certificates on 220 V and 380V circuits on an as and when required" basis
 - Distribution Boards to be cleaned on a regular basis
 - Distribution boards to be replaced where necessary
 - Perform pre-plant walk downs before a Unit is declared to be on Outage, all lights and plug socket outlets must be in order (Detailed inspection list to be provided of plant status)
 - Replace all faulty components such as Isolators, Circuit Breakers, Earth Leakages, Relays, and Connector Blocks the Employer to supply all spares
 - All Distribution Boards' doors hinges, seals and locking mechanisms must be in order and doors must be closed at all times
 - Earth leakage Statutory work PM and Other PM tests to be carried out as per PM schedule All earth leakage registers to be up to date
 - Connecting and terminating External Distribution Boxes (also includes temporary electrical supplies) or External Electrical Equipment on an as and when required basis. External Electrical Equipment and Distribution Boxes can only be connected when Supplier/Contractor (other than Contractor) has provided proof of COC for the External Electrical Equipment and/or Distribution Box
 - Ensure that 380 V welding sockets junction boxes are locked at all times (locks will be supplied by the Employer) deviations in this regard must be reported to the Service Manager.
 - All other electrical work not specified above, to be also carried out as and when required, relevant training will be provided by the Employer where applicable
 - Ensure all earths on equipment are intact according to the Employer's procedures
 - Ensure and maintain all relevant power supply boxes

2.1.4 TESTS REQUIREMENTS

The following tests shall be performed as and when required with calibrated test equipment required for each test listed below

- Voltage on-no-load, Full-load test,
- Earth leakage tests,
- Earthing continuity,
- Elevated neutral,
- Insulation Resistance,
- Loop Impedance test,

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- Earthing Resistance test,
- Luminance test
- Pressure measurement (relevant to aircons)
- Polarity test
- Prospective Short circuit test

2.1.5 BREAKDOWN MAINTENANCE

- Breakdowns during normal working hours will be handled as soon as faults are reported.
- A contact number will be supplied by Contractor, and contact person's name for work outside working hours
- Any fault will be reported to the Employer's Supervisor and documented using the WWM process
- A formal report on the breakdown will be provided to the Employers Supervisor, with the following information:
 - Time breakdown occurred,
 - Plant conditions at time of breakdown,
 - Components that failed,
 - Spares required for repair
 - Probable cause and
 - Actions taken
- Breakdown plant will be brought back to service (in healthy state) as soon as possible

2.1.6 OUTAGE WORK

- Before a Unit is declared on Outage, Contractor must ensure that all lights and plug socket outlets be in order'
- A detailed inspection to be performed by Contractor and accompanied by a list and to be provided before and after an Outage
- The detailed inspection relating to the state of plant regarding the electrical works must be signed off by both parties.

2.2 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.

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2.3 APPLICABILITY

This document will apply to all appointed resources involved in the technical tender evaluation of tenders received from the Repairers in response to the RFP for the service and repair for the brine plant transformer A. This document is also applicable to the Tender Evaluation Team for Tender Technical Evaluation Strategy for Domestic Electrical Maintenance Contract at Tutuka Power Station.

2.4 NORMATIVE/INFORMATIVE REFERENCES

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

2.4.1 Normative

- [1] ISO 9001 Quality Management Systems
- [2] 240-48929482: Tender Technical Evaluation Procedure
- [3] 240-53716726: Technical Scoring Form
- [4] 240-53716712: Technical Evaluation Results

2.4.2 Informative

- [1] Scope of Work Outside Plant Electrical Maintenance Contract at Tutuka Power Station
- [2] SANS 10142 Wiring of LV premises

2.5 DEFINITIONS

- 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.
- b. **Works:** Refers to the Works information for the Outside Plant Electrical Maintenance Contract at Tutuka Power Station
- c. **Contractor:** Refers to the entity/party which has submitted information for the Tender Requirements for the Works ,
- d. **Unit:** Refers to a plant that consists of a Boiler, Turbine and Generator
- e. **Outage:** Shutdown of a power generating unit for a period greater than 5 days in order to perform maintenance activities
- f. **Electrical Work includes but not limited to**
 - Lighting circuits, i.e., all components on the circuit from isolator load point e g Isolators at switchgear rooms, Fuses, cables, circuit breakers, DB wiring and all components inside light fittings, etc
 - 220V plug socket outlets, 380V plug socket outlets, i e all components on the circuit from isolator load point e.g., Isolators at switchgear rooms, fuses, cables, circuit breakers, DB wiring and all components inside plug socket outlets, etc

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2.6 CLASSIFICATION

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary)

2.7 ABBREVIATIONS

Abbreviation	Description
A	Electrical Current Amperes
AC	Alternating Current
Aircon	Air Conditioning System Ventilation System
C&I	Control and Instrumentation
CAD	Computer-Aided Design
CIDB	Construction Industry Development Board
CT	Current Transformer
CV	Curriculum Vitae
DB	Distribution Board
DC	Direct current
DoL	Department of Labour
EMD	Electrical Maintenance Department
GO	General Overhaul
Hz	Hertz
ISO	Internal Organization for Standard
kPa	Kilo Pascal's
kW	Kilowatts
LV	Low Voltage, <1000 Volts
m	meters
MTBF	Mean Time Between Failures
NDT	Non-Destructive Test
OEM	Original Equipment Manufacturer
OHS	Occupational Health and Safety
OPS	Operating Department
PM	Planned Maintenance job card
QCP	Quality Control Plan
RFP	Request for Proposal
RFQ	Request for Quotation
ROC	Required Operational Capability
RPM	revolutions per minute
SANAS	South African National Accreditation System

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Abbreviation	Description
SANS	South African National Standard
SHE	safety, Health & Environmental
SOW	Scope of Work
SRD	Stakeholders Requirements Definition
TET	Technical Evaluation Team
TPS	Tutuka Power Station
V	Volts
WTP	Water Treatment Plant

Table 1: Abbreviations

2.8 ROLES AND RESPONSIBILITIES

As per 240-48929482: Tender Technical Evaluation Procedure

2.9 PROCESS FOR MONITORING

As per 240-48929482: Tender Technical Evaluation Procedure

2.10 RELATED/SUPPORTING DOCUMENTS

As per 240-48929482: Tender Technical Evaluation Procedure

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3. TENDER TECHNICAL EVALUATION STRATEGY

A weighted score-card approach is used to evaluate the technical compliance of the tenders against the specifications or ability to perform the work. Tenderers need to have a minimum weighted score of 70% overall or more to technically qualify for further evaluation.

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

The following personnel will form part of the technical evaluation team:

Table 2: TET Members

TET number	TET Member Name	Designation
TET 1	Jan Verwey	Snr Engineering Asst Technician
TET 2	Sandile Thabethe	Electrical Maintenance Manager
TET 3	Ryan Hector	Electrical Engineering Manager
TET 4	Godfrey Seipone	Electrical Engineer

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3.3 MANDATORY TECHNICAL EVALUATION CRITERIA

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').

This part of the evaluation starts when submissions are opened and assessed for the first time. The Eskom evaluation team will go through the details of the returnable submissions that are required and will be ensured that all the mandatory requirements are met. Submissions that receive a 'NO' for any of these requirements will not be able to proceed to the Qualitative Evaluation Criteria stage and therefore will fail the 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.

Mandatory criteria 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.

	Mandatory Technical Criteria Description	Reference to Technical Specification / Tender Returnable	Motivation for use of Criteria
1.	Electrical Contractor performing work must be registered with the Department of Labour(D.O.L)	Letter from D.O.L with reference to company and confirmation of competent license holder	To ensure the contractor is registered with Department of Labour and compliant to OSH Act
2.	Previous similar work performed	References indicating the previous similar work with dates and order numbers and work report document number and certificate of completion and/or handover	To ensure that the contractor is familiar with the work to be done.

Table 3: Mandatory Technical Evaluation Criteria

3.4 QUALITATIVE TECHNICAL EVALUATION CRITERIA

Tenderers that have met all the Mandatory Evaluation Criteria shall be evaluated against the Qualitative Criteria as defined in the Tender Technical Evaluation Strategy.

Table 4: Qualitative Technical Evaluation Criteria

GENERAL EVALUATION CRITERIA

	Qualitative Technical Criteria Description		Reference to Technical Specification / Tender Returnable	Criteria Weighting (%)	Criteria Sub Weighting (%)
1.	History of completed Electrical Scopes of Works related to and/or of similar nature to Section 2.1 Deliverable: Submission of past electrical works completed by Contractor related to the required scope of the <i>Works</i>		Company profile document (with work completed)	40%	
	1.1	Deficient or non-responsive	Company profile document (with work completed)		0
	1.2	Technical Proposal of completed works of similar nature are available but not detailed or referenced by previous clients	Company profile document (with work completed)		40%
	1.3	Technical proposal of completed works of similar nature submitted. Less than 5 references of works completed	Company profile document (with work completed)		80%
	1.4	Technical proposal of completed works of similar nature is comprehensive with final handover certificates and acceptance work completion			100%
2.	List of the employees employed by the <i>Contractor</i> accompanied by the employees' qualifications for the <i>Works</i> Key Indicators:		CVs of all employees/List	30%	

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		<ul style="list-style-type: none"> Supervisor must have 5 years relevant experience as an Electrical Supervisor on similar plant as stipulated in this contract plus trade test. Installation Electrician should be a 3-phase registered Installation Electrician with an IE number) Artisan (electrical) must have 3 years relevant experience on similar plant as stipulated in this contract plus trade test Labourer must be able to speak, read, write, and understand English and have a minimum completed grade 10 and trained to execute the scope of work as per this contract. 			
	2.1	Deficient or non-responsive	CVs of all employees/List		0
	2.2	List of employees are available, but no qualifications are included and/or Manpower quantity does not meet <i>Works</i> requirement on list	CVs of all employees/List		40%
	2.3	Acceptable risks	CVs of all employees/List		80%
	2.4	Full Comprehensive list of details of employees of <i>Contractor</i> are listed as well as the Man-Power requirement as per <i>Works</i> is met	CVs of all employees/List		100%
3.		Safety record for the company of previous similar industrial work for the past 3 years signed by the previous employer	Safety record documentation	10%	
	3.1	No	Safety record documentation		0%
		Yes	Safety record documentation		100%
4.		A list of testing equipment with Calibration Certificate	List and Calibration Certificate	10%	
	4.1	Deficient or non-responsive	List and Calibration Certificate		0

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	4.2	List of electrical testing equipment submitted but no calibration certificate	List and Calibration Certificate		40%
		List of electrical testing equipment submitted with associated calibration certificate, but calibration certificate has expired within 1 year	List and Calibration Certificate		80%
		Comprehensive list of electrical testing equipment submitted with associated calibration certificate	List and Calibration Certificate		100%
5.		Training metrics table for all technical staff	Training Matrices	10%	
	5.1	No	Training Matrices		0%
		Yes	Training Matrices		100%
				TOTAL: 100	

3.5 TET MEMBER RESPONSIBILITIES

Table 5: TET Member Responsibilities

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

3.6 FORESEEN ACCEPTABLE / UNACCEPTABLE QUALIFICATIONS

3.6.1 Risks

Table 6: Acceptable Technical Risks

Risk	Description
1.	Contractor appoints sub-contractor to perform scope of the Works, in which sub-contractor complies to Mandatory Criteria
2.	Contractor has at least 3 years' experience with good track record of completed works and semi-skilled available resources
3.	Contractor employees'/resources not qualified by an accredited body (at least read, write, and speak English) but are accompanied by 'well-established' references and work history (sub-clause: Contractor to provide training plan for development)

Table 7: Unacceptable Technical Risks

Risk	Description
1.	Contractor employees'/resources' qualifications are not available
2.	Contractor does not have a list of electrical test equipment
3.	Contractor does not have any record of work experience

3.6.2 Exceptions / Conditions

Table 8: Acceptable Technical Exceptions / Conditions

Risk	Description
1.	Electrical Test equipment does not have calibration certificates (Contractor to get equipment calibrated before any testing)
2.	Electrical contractor has only an installation certificate for single phase

Table 9: Unacceptable Technical Exceptions / Conditions

Risk	Description
1.	Man-Power requirements don't meet the scope of the <i>Works</i>

4. AUTHORISATION

This document has been seen and accepted by:

Name	Designation
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Ntombifuthi Ngcobo	Engineering Manager
Ryan Hector	Electrical Engineering Manager
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5. REVISIONS

Date	Rev.	Compiler	Remarks
May 2020	0	Ryan Hector	Draft
September 2020	1	Ryan Hector	TET Acceptance
October 2023	2	Godfrey Seipone	Issue for Tender

6. DEVELOPMENT TEAM

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

7. ACKNOWLEDGEMENTS

Mario Do O'Faustino

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