

Title: **Repairs, Supply of Portable Electrical Distribution Boards for All TGS Sites for a period of five (5) years on an as and when required basis.**

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## **1. INTRODUCTION**

ERI TGS Operates a number of facilities within the TGS Works and Eskom Power Stations. During the execution of outages, there is a need for temporal electricity supply at different parts and sections of the plant. This, therefore, necessitates the use of portable electrical distribution boards. This document entails the scope related to the supply of portable electrical distributions for all TGS Sites on an as and when required basis for a period of five (5) years.

## **2. SUPPORTING CLAUSES**

### **2.1 SCOPE**

This scope makes provision for the Repairs, Supply of Portable Electrical Distribution Boards for All TGS Sites for a period of five (5) years on an as and when required basis.

#### **2.1.1 Purpose**

The aim of this document is to define the scope of work for the Repairs, Supply of Portable Electrical Distribution Boards for All TGS Sites for a period of five (5) years on an as and when required basis.

#### **2.1.2 Applicability**

This document is applicable to the content of the scope and its limitations.

## **2.2 NORMATIVE/INFORMATIVE REFERENCES**

N/A

### **2.2.1 Normative**

Parties using this document shall apply the most recent edition of the standards for best practices and in line with Eskom specifications that are indicated in this document.

- [1] SANS 1973-1 - Low-voltage switchgear and control gear ASSEMBLIES Part 1: Type-tested ASSEMBLIES with stated deviations and a rated short-circuit withstand strength above 10 kA

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- [2] SANS 1973-3 - Low-voltage switchgear and control gear ASSEMBLIES Part 3: Safety of ASSEMBLIES with a rated prospective short-circuit current of up to and including 10 kA
- [3] SANS 10142 - 1 - The wiring of premises Part 1: Low-voltage installations
- [4] SANS 10142 - 2 - The wiring of premises Part 2: Medium-voltage installations above 1 kV a.c. not exceeding 22kV A.C. and up to and including 3 MVA installed capacity.
- [5] SANS 12100 - Safety of Machinery

### 2.2.2 Informative

Parties using this document shall apply and have knowledge of the most recent edition of the standards as listed below.

- [6] ISO 9001 - Quality Management Systems.
- [7] ISO 14001 – Effective Environmental Management System
- [8] OHSAS 18001 – Occupational Health and Safety Standards
- [9] OHS Act 85 of 1993, *specifically*: General Machinery Regulation (GMR), Electrical Installation Regulations (EIR), Electrical Machinery Regulations (EMR) and Driven Machinery Regulations (DMR)

## 2.3 DEFINITIONS

Definition	Description
ERI	Eskom Rotek Industries SOC LTD, the Client
TGS	Turbo Gen Service, an ERI Business Unit
CoC	Certificate of Compliance

### 2.3.1 Disclosure Classification

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

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## 2.4 ABBREVIATIONS

The following are abbreviations and their descriptions are specific to this document.

Abbreviation	Description
V	Voltage
kW	Active Power
I	Current
A	Amperes
E/L	Earth Leakage

## 2.5 ROLES AND RESPONSIBILITIES

Roles	Responsibilities
Scope Compiler	Compilation of the scope of work
Functional Responsibility	Reviewing and acceptance of the scope
Support Personnel	Support and acceptance of the scope
Authorising Personnel	Reviewing and authorising the scope
Service Provider	Execution of the approved scope

## 2.6 PROCESS FOR MONITORING

Requirements	Monitoring Process
Computerised Management Process (SAP)	Monitoring of the execution progress

## 2.7 RELATED/SUPPORTING DOCUMENTS

-

## 3. SCOPE OF WORK

### 3.1 BACKGROUND

TGS have a number of Sites where it operates. These sites execute work in and around Eskom Power Stations. Some of the areas where the work is conducted do not have the required permanent electricity supply. Therefore, there is a need for a portable

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electricity supply. The portable electricity supply must be in a form of a portable electrical distribution board which is then collected to the permanent supply.

### **3.2 SITE INFORMATION**

The scope entails work to be executed at Eskom Rotek Industries SOC LTD located at 03 Lower Germiston Road on Roshland Road, Rosherville, Cleveland, Johannesburg South and all other TGS Sites located at all the Eskom Power Stations.

### **3.3 PLANT DESCRIPTION**

The plant to be worked on is a located at all TGS areas.

### **3.4 DETAILS OF THE WORKS**

The specific tasks to be conducted are detailed below. The detailed tasks are the bare minimum and binding as the minimum contractual agreement between the Client and the Service Provider. OEM requirements that may, or may not, be different from the detailed scope will be considered as and when it may arise. Upon any realization of such, the Service Provider and the Client's Representative will agree on the most effective, feasible and cost effect manner to proceed.

The full scope is for the Repairs, Supply of Portable Electrical Distribution Boards for All TGS Sites for a period of five (5) years on an as and when required basis.

The Service Provider must supply a fully compliant and operational portable electrical distribution board. The specifications of the portable electrical distribution board is as follows:

- 6 x 6 3phase Mobile Industrial Distribution Board containing:
  - 6 x 63 A, 3P+E, Flat Socket Outlets
  - 6 x 32 A, 3P+E, Round Socket Outlets
  - 20m roll – correctly rated main supply cable (with a storage brackets)
  - Protection Devices - Correctly rated circuit breaker and earth leakage
  - Sheltered Installation but Be easily moveable

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The DB must be able to be safety and easily connected to the existing electrical system.

*Sample image below:*



### **3.5 DELIVERABLES**

The service provider shall ensure that the distribution board is supply with the following:

1. The test certificate not older that 14 days to the date of delivery.
2. A valid Certificate of Compliance (CoC)
3. A check sheet that should be used before the commencement of each shift.
4. 24/7 availability
5. Be able to supply a minimum of 4 units at a time

### **3.6 ASSESSMENT CRITERIA**

The Service Provider shall ensure that their equipment is safe and compliant.

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### **3.7 WARRANTY**

The equipment shall remain the property of the Service Provider, therefore, the Service provider must ensure it is always available for use, safe and compliant. The Service Provider shall be liable for all repairs and statutory inspections/compliance of the equipment.

### **3.8 GENERAL CONSTRAINTS**

The following are the general constraints that are to be considered:

3.8.1 Working in an operational environment where machines and equipment are being handled.

3.8.2 Minimizing down periods as production will still be taking place in and around the vicinity of the working area.

3.8.3 Accuracy of existing information may be outdated and need to be verified on site prior to proceeding with any work.

3.8.4 The works will be executed at different sites, therefore the Service Provider shall take this into consideration.

### **3.9 TERMS AND CONDITIONS**

The successful Service Provider will be expected to adhere to the following minimum conditions:

- a) Adherence and compliance to the health and safety standards set out by the Client.
- b) Provide adequate PPE to its employees.
- c) Provide its own working and fully functional tools.
- d) Fully sign and complete the completion and handover form.
- e) Issue the service report for the work done and fully signed by the responsible Technician or Supervisor.
- f) Provide valid identification and medicals for the personnel who would be work.
- g) Submit Hand over documents to the Client.

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#### 4. AUTHORISATION

Name & Surname	Designation
Singobile Nene	Plant Maintenance Manager
Nhlakanipho Blose	Maintenance Service Manager

#### 5. REVISIONS

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July 2022	1	S Nene	Scope of Work – Repairs, Supply of Portable Electrical Distribution Boards for All TGS Sites for a period of five (5) years on an as and when required basis.

#### 6. DEVELOPMENT TEAM

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

- Singobile Nene

#### 7. ACKNOWLEDGEMENTS

- Maintenance Team

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