

	Scope of work	Camden Power Station
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Title: **Scope of work for Generator rotor earthing electrical brush, Supply and Deliver**

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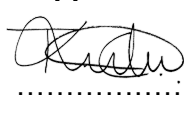
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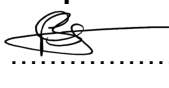
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1. Introduction

Camden Power Station is equipped with generator rotor earthing electrical brush to eliminate electrical discharges. Purpose of the shaft riding brushes is to maintain consistent, low resistance contact with the machine shaft which allows for grounding of low voltage discharges, yet they are the electrical insulation and ruggedness to dissipate high voltage discharges. Electrical discharges can lead to erosion of bearings, gearboxes, and seals. Also includes erroneous signals from vibrations and temperature probes.

2. Supporting Clauses

2.1 Scope

The scope of work specifies the supply and delivery, of generator rotor earthing electrical brush for the entire plant Unit 1 to Unit 08, the services to be provided by the *Supplier* and conditions for acceptance. Moreover, this document serves as a guideline to enable the potential Contractor to compile and submit their quotation for the required services.

2.1.1 Purpose

The purpose of this document is to ensure suitable and capable Supplier for supply and delivery, Generator rotor earthing electrical brush, Supply and Deliver is identified and allocated the work for execution. In addition to the supply, delivery, and installation of emergency lights, technical support services will be provided by the Supplier.

2.1.2 Applicability

This scope is applicable to Camden Power Station, as well as other coal fire power stations (under exceptional circumstances).

2.1.3 Effective date

This document will be effective from the date of its authorisation.

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] ISO 9001- Quality Management Systems
- [2] 240-76960420- Guideline for Spares Procurement Technical Evaluation and Quality Inspection
- [3] 32-1033 - Eskom Procurement and Supply Chain Management Policy
- [4] 32-1034 - Eskom Procurement and Supply Chain Management Procedure
- [5] 474-132 - GBE Plant Engineering Baseline Change Management
- [6] Public Finance Management Act 1 of 1999.
- [7] The Preferential Procurement Policy Framework Act 5 of 2000.

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- [8] 240-62072907 The Eskom Delegation of Authority Policy.
- [9] The Broad-Based Black Economic Empowerment Act 53 of 2003, including the Broad-Based.
- [10] Black Economic Empowerment Regulations, 2016.
- [11] Preferential Procurement Regulations 2017.
- [12] National Treasury Regulations (to the extent as indicated in the regulations).
- [13] National Treasury Standard for Infrastructure Procurement and Delivery Management (NT prescription for Infrastructure Procurement).
- [14] National Treasury Regulations (Contract Management Framework).
- [15] Promotion of Access to Information Act 2 of 2000 (PAIA).
- [16] The Companies Act, 2008 and including the Companies Regulations, 2011.
- [17] 32-173 Conflict of Interest Policy.
- [18] 32-527 The Eskom Code of Ethics Standard.
- [19] 240-81328492 Eskom Value Standardisation and Cataloguing Procedure.
- [20] Prevention and Combating of Corrupt Activities Act 12 of 2004.
- [21] B-BBEE Codes of Good Practice of 2013.
- [22] 240-113650212 Eskom Supplier Integrity Pact.

2.2.2 Informative

- [23] ISO 9000 Quality Management System – Fundamentals and Vocabulary
- [24] 32-727 Safety, Health, Environment, and Quality (SHEQ) Policy
- [25] Generation Plant Engineering Life Cycle Planning/Strategic Report for Direct Current Systems 2014: 474-10053
- [26] 240-62196227 Eskom Life Saving Rules
- [27] Occupational Health and Safety and Regulation No 85 of 1993
- [28] Directive: Consolidated COVID 19 Direction on Occupational Health and Safety Measures in Certain Workplaces
- [29] 32-225 Declaration of Interest Procedure
- [30] 32-727 SHEQ Policy
- [31] 32-1303 Execute Maintenance Work PCM
- [32] 32-1304 Manage Maintenance Work PCM
- [33] 32-1205 Eskom Maintenance Policy
- [34] 240-53717264 Tender Office Standard.
- [35] Eskom's Integrity Pact with Supplier

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2.3 Definitions

Definition	Explanation
Supplier	Contractor contracted to provide a specific spares & documentation to Camden Power Station
Employer	Eskom, Camden Power Station
Employer Representative	Any person appointed in writing by Employer as the delegated Employer representative in terms of the provisions
Plant	Any structure, machinery, apparatus, or equipment which does not fall within the scope of the operating regulations for high voltage systems, and excludes, mobile, portable lifting equipment, domestic circuits' appliances, and tools.

2.4 Abbreviations

Abbreviation	Explanation
BOQ	Bill of Quantities
DCF	Data Capturing Form
EMD	Electrical Maintenance Department
PCM	Process Control Manual
SAP	Systems, Applications and Programmes Software
SOW	Scope of Work

2.5 Roles and Responsibilities

2.5.1 Supplier:

- Provide a quotation for each listed item in ppendix A.
- Supply and deliver spares as requested by the Employer.
- Confirm correctness of the supplied spares information.
- Provide spares technical information.
- Timeously inform the Employer of any delays or when outstanding or additional information from the Employer is required.
- Ensure that a quality product is delivered/correct spare is supplied (technical datasheets and/or product brochures).
- Ensure that every effort is made to keep to the agreed program and plan.
- Supply all the necessary test sheets/results, where applicable
- Invite the Employer or representative thereof three (3) working days in advance for witness/hold points, if applicable, as agreed
- All *Supplier* employees entering site complies with Eskom's policies and site regulations, adherence to Eskom's Life Saving Rules, adherence to Generation Occurrence Management Procedure, Smoking Policy, zero tolerance on alcohol usage, etc. These requirements will be detailed during the induction training process.

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- k. Ensure that all staff brought onto site in connection with this SOW should be able to fluently speak, understand and write in English language.

2.6 Related/Supporting Documents

None

3. Works Information

3.1 Description of the works

3.1.1 Supply and delivery, of Generator rotor earthing electrical brush at Camden power station.

The scope entails the supply and delivery, Generator rotor earthing electrical brush for the 8 units at Camden Power Station with technical specifications detailed in a spare list (BOQ) that is included herein and attached as Appendix A.

Camden Power Station is using the following specification:

BRUSH, ELECTRICAL: TYPE: EARTH GENERATOR ROTOR; WIDTH: 50 MM; LENGTH: 177 MM; THICKNESS: 40 MM; CONNECTION: BOLT; MATERIAL: CU/GOLD; REFERENCE NO: 15LW; SHAFT CURRENT GOLD PLATTED BRISTLE BRUSH REPLACEMENT INSERT; PER SET: 1

3.1.2 People

None

3.1.3 Bill of Quantity

Item nr	Description	Unit	Unit Number	Expected Quantity	Rate	Price
1	BRUSH, ELECTRICAL: TYPE: EARTH GENERATOR ROTOR; WIDTH: 50 MM; LENGTH: 177 MM; THICKNESS: 40 MM; CONNECTION: BOLT; MATERIAL: CU/GOLD; REFERENCE NO: 15LW; SHAFT CURRENT GOLD PLATTED BRISTLE BRUSH REPLACEMENT INSERT; PER SET: 1	EA	14	14		

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3.2 Documentation

The following are the *Supplier's* requirements:

- a. The *Supplier* will supply any additional information such as brochure, general arrangement drawing, certificates, detailed specification, data sheet, Settings Document for programmable electronic cards, test results, service reports etc.
- b. The *Supplier* provides the *Employer* with additional spares information and verifies information required in the attached data capturing forms (DCF).
- c. The *Supplier* provides preservation and storage procedure/s, where applicable.
- d. The *Employer* may make clarification sessions available to either prospective *Supplier/s* to further assist the prospective *Supplier's* to meet the requirements of the supply scope delivered by the *Supplier*.

3.3 Management and Reporting

- a. The *Supplier* to be represented at any ad-hoc meetings that may arise to address any scope and safety related matters.
- b. Liaison meetings be held with the *Employer's* Representative or his/her delegate on as and when required basis to discuss any technical details, or concerns.

3.4 Acceptance of Spares

3.4.1 Spares Identification

- a) Appendix A herein and attached to this document is a list of all the spares and service to be procured under this SOW. This list corresponds to the provided electronic copy of the DCF's or SAP Specification Printout that contain more information about the required spares.
- b) Each spare is identifiable by means of an Eskom SAP Material number (as is used in the Power Station), part description, OEM and/or OEM part number.

3.4.2 Obsolescence

- a. The *Supplier* informs the *Employer* immediately where spares are found to be obsolete before the alternative spares is supplied,
- b. The *Supplier* indicates this to the *Employer* and indicate viable alternatives thereof.
- c. The *Employer* will review the alternatives and advice on the acceptance/rejection of the alternative thereof prior to the spares being delivered onsite.

3.4.3 Design, Manufacturing and Testing

Unless an alternative spare is proposed the required spares to be the same, in all respects, as the original components. The spares conform to the same specifications as the original components. This includes all aspects such as design, materials and material specifications, manufacturing and manufacturing processes, testing, and operating and storage specifications.

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3.4.4 Replacement Parts Upgraded/modified.

Where equipment or spares, including the whole assembly, have been upgraded/ modified the *Supplier* indicates this to the *Employer* as part of the tender. The *Employer* made aware immediately where the upgrade/modification to the component is only identified subsequent to the tender being issued. The detailed compatibility to the existing component indicates including changes required to fit the upgraded/modified spare. This includes hardware, firmware, and software upgrade/modification. Approved alternative components be accepted provided they comply to all technical & commercial requirements.

If the components to be supplied will be obsolete, or envisaged to be obsolete, in the 3 years after tender being issued, the *Supplier* indicates this to the *Employer* and indicate viable alternatives thereof.

3.4.5 Packaging

- a) All supplied spares be packaged in such a manner that they will be transported and stored without damage. This includes preventing damage due to moisture ingress, dust, and foreign objects. The Camden Power Station.
- b) Spares Preservation be used in addition to the *Supplier* Transportation and Storage procedures.
- c) Different spare types are packaged separately such that each spare type can be stored separately. Packages be such that the spare can be identified without opening the packaging. Packages be the material that will not be damaged, to an extent possible, by harsh weather conditions during transportation. If that is not possible, then the packages be protected against such conditions.
- d) Where possible, packaging to be such that procured spares can be positively identified through the packaging. Where this is not possible, the packaging to be such that it allows opening and closing of packaging and still maintain the packaging integrity thereafter.
- e) Delivery packaging includes as a minimum the following details:
 - i. Purchase Order Number
 - ii. Part Description
 - iii. Part number
 - iv. Eskom SAP Material number
 - v. Drawing number, where applicable
 - vi. Physical address of Camden Power Station and the Supplier
 - vii. Contact details of the Supplier
 - viii. Delivery notes number

3.4.6 Transportation

Transportation of all spares be conducted with due regard of the sensitivity of the units and in such a manner that spares are suitably protected. All possible care must be taken to ensure that the components are not subjected to undue rough handling, vibration, humidity, excessive temperatures, or abuse. When courier service is used for transportation, the courier services service provider be alert to the nature of the content of the packages and instructed to handle with care. Labels used to indicate the fragile nature of the items.

3.4.7 Guarantee of delivered spares and services rendered.

All delivered spares and service rendered comes with an at least 12-months guarantee period starting from the *delivery date*.

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4. Acceptance

This document has been seen and accepted by:

Name	Designation

5. Revisions.

Date	Rev.	Compiler	Remarks
Nov 2024	01		New Document

6. Development Team

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

7. Acknowledgements

a.

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Appendix A-Generator rotor earthing electrical brush.

No.	Material Number	Description	Expected Quantity
1)	212009	BRUSH, ELECTRICAL: TYPE: EARTH GENERATOR ROTOR; WIDTH: 50 MM; LENGTH: 177 MM; THICKNESS: 40 MM; CONNECTION: BOLT; MATERIAL: CU/GOLD; REFERENCE NO: 15LW; SHAFT CURRENT GOLD PLATTED BRISTLE BRUSH REPLACEMENT INSERT; PER SET: 1	14

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