Eskom National Transmission Company South Africa ™	**Scope of Work**	**Central Grid**

Title: **Supply, delivery, and installation of water tanks, water filters & water pumps at various substations in central grid.**

Document Identifier: **559-54930475**

Alternative Reference Number:

Area of Applicability: **Central Grid**

Functional Area: **HV Plant**

Revision: **0**

Total Pages: **8**

Next Review Date: **N/A**

Disclosure Classification: **Controlled Disclosure**

Compiled by	**Reviewed By**	**Authorized by**
L Mulaudzi	**M Simango**	**P Sereme**
HV Plant Snr Advisor	**HV Plant Snr Engineer**	**HV Plant Manager**
Date: 04/06/2025	Date: 11/06/2025	Date: 11/06/2025

Content

Page

1. Introduction

Eskom NTCSA has an obligation to provide a clean water and sanitation to all its employees, as part of the OHS Act. This obligation applies in office spaces and substation environment according to national building regulations.

In recent times Central grid substations have been having limited to no water access and as such, the grid is not able to supply clean water and sanitation. This problem was a result of municipalities no longer supplying water in some arears and some are due to poor maintenance of the existing water supply facilities (i.e., boreholes and plumbing).

To solve this water shortage issue, the refurbishment of water supply systems in certain areas and installation of new plumbing system is required. This will require the drilling of new boreholes, the installation of pumps and water tanks in the substations. The scope of work will be achieved through the appointment of a contractor since the skills and equipment required to execute this work is not available within the Grid nor in NTCSA.

2. Supporting Clauses

2.1 Scope

2.1.1 Purpose

The purpose of this document is to outline the detailed scope of work for the provision of clean water and sanitation in Central Grid substations.

2.1.2 Applicability

This document shall apply to Transmission Company South Africa, Central Grid.

2.1.3 Effective date

This document is effective from the date of approval until thought the completion of the scope of the project.

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] SANS10254: Installation, replacement, and repair of hot water system

[3] SANS 151: Fixed electric storage water heaters

[4] SANS 10252-1: Water supply and drainage for buildings Part 1: Water supply installations for buildings

[5] SANS 10252-2: Water supply and drainage for buildings Part 2: Drainage installations for buildings

[6] SANS 10400: The application of the National Building Regulations

2.2.2 Informative

[7] Occupational Health and Safety Act 85 of 1993.

[8] Water Service Act 108 of 1997.

[9] National Water Act 36 of 1998.

[10] Policy-based research on groundwater management and use in South Africa, 2022.

2.3 Definitions

Borehole drilling: the process of creating a narrow, deep hole in the ground for various purposes, primarily to access underground water sources or for geological and environmental investigations.

Groundwater: water found underground in saturated zones beneath the land surfaces.

Plumbing: the system of pipes, tanks, fittings, and other apparatus required for the water supply, heating, and sanitation in building.

Water Filtration: the process of removing or reducing the concentration of particulate matter, including suspended particles, parasites, bacteria, algae, viruses, and fungi, as well as other undesirable chemical and biological contaminants from contaminated water to produce safe and clean water for a specific purpose, such as drinking, medical, and pharmaceutical applications.

2.4 Abbreviations

Abbreviation	Explanation
COC	Certificate of Compliance
ISO	International Organization for Standardization
ITP	Inspection and Test Plan
MIE	Master Installation Electrical
OHS	Occupational Health and Safety
QCP	Quality Control Plan
SANS	South African National Standards

2.5 Roles and Responsibilities

1. The employer (NTCSA) shall appoint the contractor capable to execute the scope of work stipulated in the documents.
2. Eskom appointed contract manager shall manage the contract and approve the site-specific task orders.
3. The contract manager shall ensure that the contractor is paid after the execution of the scope describe in such task orders.

4. The contractor shall accept the task order and execute the scope stipulated on such task orders.
5. The contractor shall provide all the materials and resources (Labour, etc.) required to execute the scope of work.
6. The contractor shall ensure the adherence of all Eskom NTCSA rules and regulations while executing the scope.
7. The contractor shall ensure adherence to all the national and municipalities by-laws in terms of groundwater usage.
8. The contractor shall issue the COC after the completion of all electrical installation (this will be achieved through the inspection by the MIE).

2.6 Process for Monitoring

1. The contractor after successfully bidding for the tender will be required to submit scope specific SHEQ requirements.
2. The SHEQ requirements will then be evaluated by the NTCSA SHEQ team.
3. The contractor will then be invited to the site for SHEQ induction.
4. The contractor will be required to submit QCP/ITP for quality checks.
5. All the defects identified will be addressed and corrected by the contractor before payment of the retention.
6. The contractor shall ensure that all the hand over, inspection and testing reports are signed by the accredited person who takes full responsibility.
7. The contractor shall sample the water and provide the sample results to the project coordinator before completing the hand over.

2.7 Related/Supporting Documents

Not applicable

3. Scope of Work

Plumbing for drinking water as required by the employer in the premises of the NTCSA Central Grid Substations:

- Drilling of a borehole, installation of borehole equipment, and installation of borehole casings.
- The demolition and re-instatement of the concrete driveway.
- Connect the water supply from the water tank to the security building and the offices.
- Connect the water supply to all toilets and bathrooms in the station.
- Install water filters in the kitchens at offices and security for safe drinking water supply.
- Repair all leaking pipes on main lines as well as in the buildings.
- Inspect the condition of infrastructure of the existing boreholes, wall stability, determine depth, borehole yield test and water quality to be in line with SANS 241 standards and Employer to accept.
- Install the pump as per the site requirement with the suitable flowrate fitting to the existing borehole rate.

- Install a booster pump where necessary to provide sufficient pressure to the buildings.
- Connect the water pump to power supply and do the final tests and issue the COC.
- Install the 2.5kℓ water tanks.
- Install a water tank stand that will support the 2.5kℓ water tanks.
- Installation pipes and plumbing fixtures.
- Visual inspection of equipment and operate test equipment.

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Pulane Sereme	HV Plant Manager
Matimba Simango	HV Plant Snr Engineer

5. Revisions

Date	Rev.	Compiler	Remarks
June 2025	0	LL Mulaudzi	New scope of work

6. Development Team

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

- Livhuwani Mulaudzi

7. Acknowledgements

- Matimba Simango

Appendix A – TECHNICAL SPECIFICATIONS

A.1