



SCOPE OF WORKS FOR HV LINES PROJECTS FOR THE CENTRALEAST CLUSTER (FS & KZN OU) (SUPPLEMENTATION PROCESS).

1. INTRODUCTION

This document establishes the standard scope of works for the for HV Line for the Central East Cluster (Supplementation Process).

The project categories shall range from, strengthening, refurbishment, direct customer and electrification projects.

2. TECHNICAL SCOPE (HV LINES)

The term HV Lines in this document is used to describe the following categories of work:

- a) **Refurbishment Works** – This is related to strengthening, refurbishing Existing HV lines 88kV and 132kV Lines which includes but not limited to, demolishing of existing foundations, painting, replacing of rusted bolts, replacing of rusted steel members, replacing of conductors, replacing of shieldwires and replacing hardware etc.
- b) **New Works** - Construction related to HV Lines infrastructure for New Lines which may include but not limited to, Installation of foundation, erecting and assembly of steel lattice structure/steel poles, installation of conductors, installation of shieldwire, installation of hardware etc.

2.1 DEFINITION OF THE HV LINE CIVIL WORK AND FOUNDATIONS

2.1.1 “HV Civil work and foundations”

- a) Foundation Setting out and pegging.
- b) Stub Setting
- c) Leg levelling
- d) Demolishing of existing concrete foundations, remove and repair the existing Grillage foundations.
- e) Properties of Concrete through its various stages
- f) Concrete formwork
- g) Reinforcement placement and securing principles.
- h) Concrete mixing
- i) Placement and compaction of concrete
- j) Protection and curing of placed concrete.



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- k) Concrete Joints
- l) Concrete defects and repairs
- m) Sampling and testing of concrete.
- n) Backfilling and Compaction of foundations
- o) Drainage works (Berms)
- p) Geotechnical investigations and reporting
- q) Access roads to towers
- r) Earthing for foundation and counterpoise earthing

2.2 DEFINITION OF THE HV LINE STRUCTURAL WORKS AND STRINGING

2.2.1 "Structural works and stringing

- a) Steel/concrete/wood structure/tower assembly and erection
- b) Tension-stringing
- c) Regulating
- d) Clamping in of conductor
- e) Crimp jointing
- f) Installation of Hardware, vibration dampers, bird flight diverters, Bird guard and aircraft warning spheres
- g) Installation of anticlimbing devices
- h) Remove and replace steel members, Remove and reinstall concrete poles/Steel poles/lattice towers, restringing of conductor and replacing of hardware.
- i) Remove and restringing of shieldwire and stringing of shieldwire.



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3. APPROVAL OF TECHNICAL EVALUATION CRITERIA AND STRATEGY

Name	Designation and Department	Signature	Date
Phutheho Moabi	Line Designer Network Engineering and Design		17/09/2024
Preshnee Chetty	Manager Design Eng; Civil, Power Plant and HV Lines		17/09/2024
Andre Damons	Manager Design Eng; Civil, and HV Lines		17/09/2024
Mlungisi Sibiya	Programme Manager; Project Execution Core		17 Sep 2024
Palesa Mokgothu	Programme Manager; Project Execution Core		19.09.2024