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## **BACKGROUND INFORMATION DOCUMENT (BID)**

**Environmental Scoping Assessment (ESA) for the Proposed Construction and Operation of a 25m Camouflaged Tree Telecommunication Tower at Windhoek Central, Khomas region**

**Proponent: PowerCom (Pty) Ltd**

**Environmental Consultant: Excel Dynamic Solutions (Pty) Ltd**

## 1 INTRODUCTION

PowerCom (Pty) Ltd (The Proponent) proposes to erect and operate a 25 m Camouflaged tree (network) tower at Windhoek Central Erf RE/321 in the Windhoek East Consituency, Windhoek (Coordinates: - **22°34'23.1"S**, **17°04'58.3"E**) as indicated in **Figure 1**.

Telecommunication tower and related infrastructure development are among listed activities that may not be undertaken without an Environmental Clearance Certificate (ECC) under the Environmental Management Act (EMA) (2007) and its 2012 Environmental Impact Assessment (EIA) Regulations. The relevant listed activities as per EIA regulations are:

- *10.1 (g) The construction of masts of any material or type and of any height, including those used for telecommunication, broadcasting, and radio transmission.*

In order to comply with the EMA and its regulations, the Proponent has appointed Dynamic Solutions (Pty) Ltd, an independent team of Environmental Consultant to conduct the required Environmental Scoping Assessment (ESA) process and submit the ECC application to the Department of Environmental Affairs and Forestry (DEAF) at Ministry of Environment, Forestry and Tourism (MEFT).

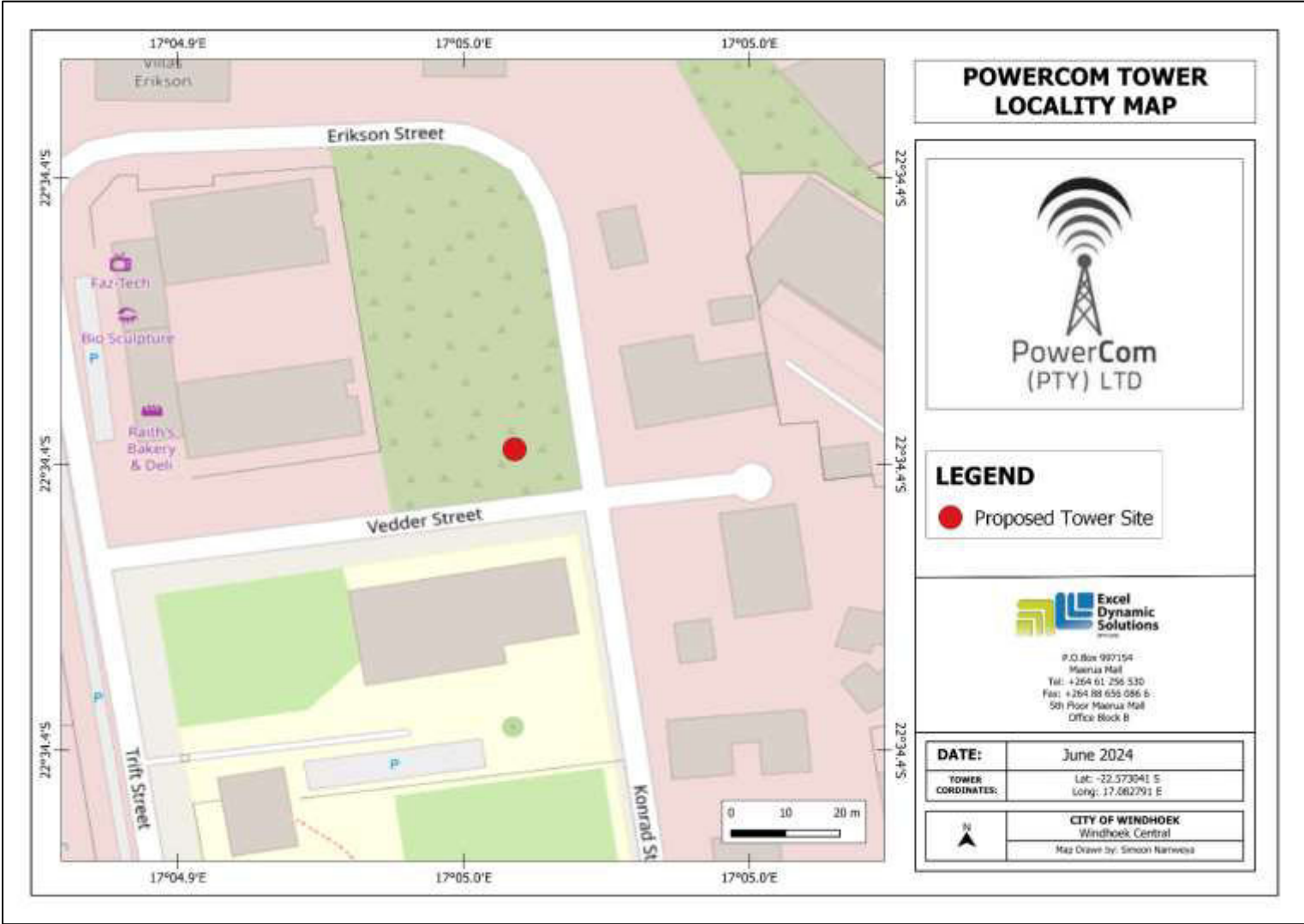


Figure 1: Locality map of the proposed project

## **2 PURPOSE OF THIS DOCUMENT**

It should be noted that the Background Information Document (BID) is a non-technical document and not an Environmental Scoping Assessment (ESA) Report. The BID is non-technical summary of the ESA, aimed at sharing information and a basis for public involvement from the beginning of the ESA process. The purpose of the BID is therefore to provide project background information to stakeholders as well as Interested and Affected Parties (I&APs), thus providing an opportunity for them (I&APs) to receive information, comment and raise issues regarding the environmental authorization process. The aim of this document is to:

- Briefly introduce the proposed project and related activities to potential I&APs and stakeholders, and provide information on the ESA process and how I&APs can get involved.
- Invite members of the public to register as I&APs and add them to the ESA database so that they can stay informed about the ESA progress throughout its process, and
- Provide all I&APs with an opportunity to comment or provide inputs or raise issues on the proposed project activities. The I&APs inputs will then form basis of the authorities (Ministry of Information and Communication Technology (MICT) and MEFT, respectively) to make informed decisions on the issuance of the ECC.

## **3 NEED AND DESIRABILITY OF THE ACTIVITY**

Due to the constant growth in the use of mobile communication services in Namibia, the pressure (on service providers) to continuously expand the communication network is increasing. PowerCom has foreseen a shortfall in mobile network access (poor network signal) in this part of Windhoek Central. This planned activity will provide additional capacity, reducing the congestion problems and improving coverage in the area. This will also ensure improved the quality of service provided to mobile users in the town.

## **4 PROJECT DESCRIPTION**

The Communications Act No.8 of 2009, requires that service providers first consider sharing existing infrastructure in the area before constructing new structures. There is no other infrastructure near the proposed site, which could be shared by PowerCom install/mount their antenna, therefore, they would need to construct a new tower.

There are critical factors that are usually employed to optimize the positions of new structures in the telecommunication industry. These include coverage of existing network infrastructure, surrounding topography & built-up environment, required footprint and the most appropriate design of the facility (GCS Water & Environmental Consultants, 2017).

Once the Proponent has been issued with an ECC and obtained all relevant and required permits/licensing such as land use/ leasehold agreements, the proposed construction activities will commence at the site.

#### 4.1 Project processes

The regular network shortfalls experienced by mobile users in the area has led to this site selection. Furthermore, the outcome of the selection criteria used, provided the best potential position of the tower in Windhoek Central area. The site is under the ownership of the Windhoek Municipality, and land use (leasehold) agreement to occupy the land for the purpose of the construction a tower by PowerCom is awaiting officially written approval. The locality details of the site are shown in **Table 1**.

**Table 1: Proposed site locality details**

Site Name	Windhoek Central
GPS Coordinates	-22°34'23.1"S, 17°04'58.3"E
Local Authority	Municipality of Windhoek
Regional Administration	Khomas Regional Council

#### 4.2 Design and Technical Aspects

The proposed tower will be 25 m high, Camouflaged structure mounted with antennae. The tower site will also include an outdoor cabinet, and a perimeter fence to restrict unauthorized access. The site will be used to provide 3G/4G coverage for about 1.5 km radius, in order to have proper indoor and outdoor coverage. The footprint (surface area) to be covered by the tower and associated equipment/ accessories is anticipated to be 100m<sup>2</sup>, with only less of that total dedicated to the actual footprints of the tower. Frequencies are determined by the operators that will utilize the tower.

#### 4.3 Construction phase

There will be minimal earthworks to prepare the sites for the tower construction and installation. The construction work is expected to be completed within 3 months. The structures of the tower will be mounted to a concrete foundation and will not require any supporting cables. The physical assembling of the network structure and the construction of the foundations will take place on the sites by using manual labour as far as possible.

For safety and security reasons, the tower site will be fenced to ensure restriction of access to the tower to authorized personnel (such as maintenance team) only, and to prevent vandalism from unauthorized individuals.

PowerCom will appoint a contractor to carry out the construction. This work will be carried during weekdays only and between 08:00 and 17:00. Preference for the construction works will be given to locals, i.e., contractors from Windhoek.

The appointed construction contractors will not be housed on site but at their homes (for the locals). Therefore, no campsite related to the proposed project will be set up on site or its vicinity.

PowerCom, as well as the appointed contractor for construction, will be required to adhere to health and safety requirements to be presented in the Environmental Management Plan of this study.

#### **4.4 Operational and maintenance Phase**

This is the phase during which the tower will be operational and provide network signal to the residents and other future land users in these parts of the town. Maintenance of the tower will be carried out by the PowerCom maintenance department, as when required.

Similarly, to the construction phase (works), PowerCom, as well as the appointed contractor for construction, will be required to adhere to health and safety requirements to be presented in the Environmental Management Plan at the end of this study during this phase.

#### **4.5 Operational and maintenance Phase**

The following services and infrastructure as provided below will be required for the project activities:

**-Human Resources:** The number of workers required for the construction of the tower can only be determined by the contractor to be appointed for construction works by PowerCom once the ECC is issued. The workforce will include skilled, semi and unskilled worker, as necessary to complete the work.

**-Power Supply:** No electricity is required during the construction of the tower. However, it will be required during the operational maintenance phase of the tower. However, it will be required during the operational maintenance phase of the tower. Alternating Current (AC) power will be required for the operation of the tower and will be connected to the City of Windhoek grid.

**-Water Supply:** Minimal amount of water will be required for the construction. This water will be used for drinking and efficiently used for in-situ concrete mixture, i.e. the amount of water will be sourced from Windhoek Central. This will be upon agreement with the Municipality or relevant water supplier, who can be the nearest home or business owners.

**-Accessibility (roads):** The site is in Windhoek central, and can be accessed through the existing Erickson Street and Vedder Street roads.

**-Waste Management:** There will be minimal waste generated on site. This will include general, solid, and possibly wastewater (sewage). This different waste will be handled as follows:

**-Health and Safety:** Adequate and appropriate Personal Protective Equipment (PPE) will be provided to every project personnel while on duty at the site. A first aid kit will be readily available on site during construction works.

**-Potential Accidental Fire Outbreaks:** A minimum of basic firefighting equipment, i.e., a fire extinguisher will be readily available in vehicles, at the site.

#### **4.6 Decommissioning: Rehabilitation of sites**

The Proponent will need to properly decommission the construction works and carry out any necessary rehabilitation of the site. This will include backfilling of any side trenches with topsoil. The aim is to ensure that disturbed site areas are left close to their pre-work states as much as possible.

## **5 ENVIRONMENTAL ASSESSMENT**

This ESA process is conducted in accordance with the provisions laid out in the Environmental Management Act (No. 7 of 2007) and its Environmental Impact Assessment Regulations (2012). The primary objective of the ESA will be to identify potential negative impacts associated with the proposed activity, assess them, and recommend practical and effective mitigation measures to be implemented by the Proponent to minimize these impacts, while maximizing positive impacts.

The main objectives of this ESA are to:

- Comply with Namibia's Environmental Management Management Act (2007) and its EIA regulations (2012).
- Identify potential impacts associated with the proposed activity.
- Inform Interested and Affected Parties (I&APs) and relevant authorities about the proposed activities and to provide them with a reasonable opportunity to participate during the EA process.
- Assess the significance of issues and concerns raised.
- Compile a report addressing all identified issues and potential impacts related to various aspects of the activity.
- Compile an Environmental Scoping Report as well as a Draft Environmental Management Plan (EMP) which includes impacts, management and mitigation measures.

### **5.1 Pre-Identified Potential Impacts**

The following potential impacts have been identified:

#### **5.1.1 Positive:**

- Telecommunication convenience: Current and future residents (mobile users) will have an improved infrastructure and will not have to struggle with network coverage.
- Employment Creation: Creation of temporary jobs during the construction of the tower.
- General contribution to local economic development through reliable communication services.

#### **5.1.2 Negative Impacts:**

- Physical land/ soil disturbance: excavation activities to erect the tower could potentially lead to site soils' disturbance.
- Disturbance: During tower construction, the construction activity may disturb the immediate neighbours to the site.
- Visual impact: The presence of the tower in the neighbourhood may be a nuisance to locals.



- Health and Safety Issues: Electromagnetic Radiation emitted from the antennae of cellular structure may affect human health,
- Potential health and safety risks associated with mishandling of construction and operations equipment.
- Civil Aviation concerns: The proposed site designs and location need to be verified to ensure that it meets the approval of the Directorate of Civil Aviation regarding the height of the masts and the position and stability of transmitters.
- Environmental pollution from improper disposal of waste generated during construction and maintenance phases.

The potential impacts listed above are pre-identified and therefore should not be deemed as final or the only ones. Other potential impacts will be identified as the ESA process progresses i.e., upon site visit and consultation with the public (I&APs). All impacts and public concerns/comments will be incorporated and addressed in the Environmental Assessment Report and EMP.

## 5.2 Public Consultation Registration

Public consultation is an important part of the EA process. During the consultation process, I&APs are allowed to raise any issues or concerns pertaining to the project activities.

To comment or receive further information on the project, **please register with Excel Dynamic Solutions (Pty) Ltd** as an Interested and Affected Party (I&AP).

Furthermore, the Consultation Meeting details will be communicated with registered I&APs.

For comments and/or further information requests, please contact EDS Consultant on the details provided below:

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