



# TRANS-AFRICA PROJECTS

Ground floor, Uitzicht Building  
Tygerberg Office Park  
163 Uys Krige Drive  
Platteklouf, Cape Town  
7500

Ekcon  
Uitzicht Building  
Tygerberg Office Park, Uys Krige Dr  
**Platteklouf** 7500  
Cape Town

**Att: Mr Erik Raymond**

Date

7 February 2018

Your Reference

Arnim's Place

Our Reference

Arnim's Place

Enquiries

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Dear Erik

## RE: HEATH EFFECTS NEAR POWER LINES

Our recent conversation regarding the long term health effects under or near power lines refers and in particular, your request for guidance concerning the Arnim's Place development.

There are two main parameters to consider when dealing with long term health effects near electrical cables and power lines. Electro-Magnetic fields (measured in Micro Tesla) and Electro-static fields (measured in kV/m).

**SANS 10280-1** stipulates the following limits for general public exposure at the servitude boundary of any utility power line:

1. Electro-magnetic limit: **200.0 micro Tesla**
2. Electro-static limit: **5.0 kV/m**

For a **132kV power line** with a servitude width of 31m, the following typical values can be expected:

1. Electro-magnetic field: ~ **1.0 micro Tesla**
2. Electro-static field: ~ **0.5 kV/m**

These values demonstrate that, assuming all legally required clearances (conductor heights above ground etc.) are adhered to, there is no specific cause for concern regarding these exposure types.

Yours faithfully

Leigh Stubbs (Pr Eng)

**Engineering Manager, Trans-Africa Projects, Cape Town**