



TRANS-AFRICA PROJECTS

TAP MIDRAND OFFICE
Allandale Offices
23 Magwa Crescent (West)
Waterfall City
Midrand, Johannesburg
2090
South Africa

TRANSMISSION CONSULTING SERVICES
PO Box 86493
Windhoek
Namibia

Att: Mr Riaan van Zyl

Date
28 October 2019

Your Reference
TAP Training

Our Reference
TCS Training

Enquiries
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Dear Mr Van Zyl,

RE: REFERENCE LETTER

This letter serves to confirm that Mr Riaan van Zyl from Transmission Consulting Services (TCS) assisted Trans-Africa Projects (TAP) with transmission line design training presented to the Kenyan Transmission Utility, KETRACO during July 2019.

Riaan's role was to provide a one-day session on transmission line electrical design training for the KETRACO Engineers. The topics covered were:

- Power Transfer
- Line Losses
- Transpositions
- Conductor Bundles
- Horizontal, vertical and delta line configurations
- Conductor GMR
- AC and DC resistance
- Inductance and Capacitance
- ACSR and GSW Thermal Calculations
- ACSR, OPGW and GSW Thermal short circuit calculations

This training was well executed, and the client was pleased with the delivery and level of input.

Yours faithfully



Graeme Louw
Corporate Consultant – Overhead Lines

CC Chris Du Toit