Our Ref:



an agency of the Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town P.O. Box 4637 | Cape Town | 8001 www.sahra.org.za

Enquiries: Natasha Higgitt Date: Tuesday September 27, 2016

Tel: 021 462 4502 Page No: 1

Email: nhiggitt@sahra.org.za

CaseID: 9914

## **Interim Comment**

In terms of Section 38(8) of the National Heritage Resources Act (Act 25 of 1999)

Attention: Kloofsig Solar (Pty) Ltd

# Environmental Impact Assessment for the proposed 75 MW Kloofsig Solar PV Energy Facility, Northern Cape - Phase 1

Kloofsig Solar (Pty) Ltd are proposing the construction of three solar energy facilities; namely Kloofsig Solar 1, 2 and 3. SRK Consulting (South Africa) (Pty) Ltd have been contracted to conduct the Environmental Impact Assessment for the proposed developments.

Kloofsig Solar 1, (75MW facility) is proposed to be located on the remaining extent of portion 0 of farm Kalkpoort 18, Petrusville within the Renosterberg Local Municipality (Pixley Ka Seme District Municipality, of the Northern Cape Province).

Killian, K. 2016, Proposed 75MW Kloofsig Solar PV Facility, Northern Cape. – Kloofsig 1, Draft Scoping Report.

The proposed facility will include the following upgrades: a 400kV on-site substation with connecting lines, (or a 132kV overheard powerline +-8.6km in length crossing portion 0 of farm 20, Alwyn Vlakte, connecting to a 132kV substation on portion 2 of Doornfontein farm 59); Solar panel array (fixed or tracking); underground cabling, inverters, a substation connecting Kloofsig 1,2 &3; a secondary switching substation; a 132kV overhead powerline; 33kV below ground power connection for data acquisition; laydown area, construction camp; offices; ablution facility; store room; internal and external access roads; water supply; waste-water and solid waste management.

Within the scoping report, the archaeological assessment (Ms Madelon Tusenius) and palaeontological assessment (Dr. John Almond) have been summarized, but neither the archaeological nor palaeontological scoping reports have been submitted to SAHRA. The summaries thereof state the following: there is a dispersed background stone age scatter across the region consisting of a mixture of middle and later stone age artefacts, and some middle and early stone age artefacts exposed along the watercourse north of the proposed powerline; it was noted that the area is not known to contain palaeontological specimens and that no sensitive or no-go areas were identified.

Our Ref:



an agency of the
Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za

South African Heritage Resources Agency | 111 Harrington Street | Cape Town
P.O. Box 4637 | Cape Town | 8001

www.sahra.org.za

Date: Tuesday September 27, 2016

Enquiries: Natasha Higgitt

Tel: 021 462 4502

Email: nhiggitt@sahra.org.za

CaseID: 9914

## **Interim Comment:**

SAHRA Archaeology, Palaeontology and Meteorites (APM) Unit cannot provide any official comment on the proposed development as there is insufficient information or required documentation submitted to SAHRA.

 SAHRA APM will only be able to provide comment on the proposed development once the Archaeological and Palaeontological Assessment Reports, conducted by Ms Madelon Tusenius and Dr. John Almond respectively, have been submitted. Please submit these reports as soon as possible in order for official comments to be issued.

Page No: 2

Should you have any further queries, please contact the designated official using the case number quoted above in the case header.

Yours faithfully

Natasha Higgitt Heritage Officer

South African Heritage Resources Agency

John Gribble

Manager: Maritime and Underwater Cultural Heritage Unit / Acting Manager: Archaeology, Palaeontology and

Meteorites Unit

South African Heritage Resources Agency

ADMIN:

# **Kloofsig 1 Solar Facility**

Our Ref:



an agency of the Department of Arts and Culture

T: +27 21 462 4502 | F: +27 21 462 4509 | E: info@sahra.org.za South African Heritage Resources Agency | 111 Harrington Street | Cape Town P.O. Box 4637 | Cape Town | 8001 www.sahra.org.za

Date: Tuesday September 27, 2016

Page No: 3

Enquiries: Natasha Higgitt

Tel: 021 462 4502

Email: nhiggitt@sahra.org.za

CaseID: 9914

Direct URL to case: http://www.sahra.org.za/node/367835

(DEA, Ref: 14/12/16/3/3/2/951)



Private Bag X 447· PRETORIA · 0001· Environment House · 473 Steve Biko Road, Arcadia, · PRETORIA Tel (+ 27 12) 399 9584

#### Ref: Enquiries: T Mashamba

Tel: 012 399 9584 Email: tmashamba@environment.gov.za

SRK Consulting (South Africa) (Pty) Ltd. Ground Floor Bay Suites 1A Humewood RD Humerail Port Elizabeth 6001 South Africa

Fax: 041 509 4850

Dear Ms Killian

THE SCOPING REPORTS FOR THE PROPOSED KLOOFSIG 1, 2, AND 3 SOLAR PV ENERGY FACILITIES AND THEIR ASSOCIATED INFRASTRUCTURE, NORTHERN CAPE – KLOOFSIG SOLAR PV.

- The proposed development area falls within the Platberg-Karoo Conservancy Important Bird Areas (IBAs). These areas are sites of international importance for the conservation of the world's birds and other biodiversity. The protection of such sites is significant to ensure that the national and international biodiversity targets area reached.
- The Directorate Biodiversity: Conservation supports the development of renewable energy facilities within South Africa. However, it should be noted that the potential impacts on biodiversity associated with renewable energy technologies are not fully understood. It is therefore, essential that a precautionary approach is taken.
- The PV layouts and associated infrastructure positions must be located outside ecologically sensitive areas. This must be clearly depicted on sensitivity maps within the reports. Appropriate buffers to protect sensitive biodiversity features must be clearly shown.
- All overhead power lines must be designed in such a manner that minimises electrocution and collision risk. A detailed Avifaunal Impact Study must be done in order to assess and quantify the impacts associated with the proposed development and its associated infrastructure on avifauna.
- A clear demonstration of how all recommendations and mitigation measures proposed by the all specialist in their report have been taken into consideration must be made. Where impacts are considered to be unavoidable, this should be clearly stated and motivated.
- The project descriptions alternatives must be of sufficient detail to allow for the assessment of relative impact on the receiving environment and support any conclusion about why the alternative may have been selected or rejected.

## Conclusion

The Directorate: Biodiversity Conservation has no objection on the proposed development. However, conclusive comments and recommendation will be made after evaluating the specialist studies to be submitted in the Environmental Impact Assessment Report. The comments from the conservation agencies and the provincial department must be sought since they are mandated to conserve and protect biodiversity within the area. Their recommendations must be incorporated into the project.

To fully understand the characteristics, ecological dynamics of the receiving environment and management alternatives proposed by the specialist, a site visit with the Ecological Specialist, the provincial commenting authority, DEA case officers must be done. This will allow officials to gather information that will inform decision making on final PV layouts, access routes, construction camp and power line routes for the proposed development. The Directorate Biodiversity Conservation reserves the right to revise the above comments should additional information on this application is made available at a later stage.

Ms Wilma Lutsch

Whits de

**Director: Biodiversity Conservation** 

**Department of Environmental Affairs** 

Date: 09/11/2016

## SOUTH AFRICAN



Physical Address: Ikhaya Lokundiza Treur Close Waterfall Park Bekker Street Midrand Postal Address Private Bag X 73 Halfway House 1685

Telephone Number: +27 11 545 1000

Fax Number: +27 11 545 1465 Southern Region Office: PO Box 174

Cape Town International Airport 7525

Telephone Number: +27 21 934 4744

Fax Number:

+27 21 934 1326

E-mail Address: mail@caa.co za

Website Address www caa co za

## Kloofsig Solar (Pty) Ltd

14 Rose Street Central Port Elizabeth 6001

Registration no.2014/169867/07

12 May 2016

Attention: Duncan Palmer

Enquiries: L Stroh
Tel. 011 545 1232
strohl@caa.co.za

Ref. CA8/2/De Aar/Petrusville CAA-2015-03-Sol001

Conditional Approved: Proposed Kloofsig, Photovoltaic Power Solar Energy Facility situated near Luckhof in the Northern Cape Province.

After evaluating the site position and reviewing the information received on 18<sup>th</sup> March 2015, the SACAA has **no objection** to the proposed Energy Facility subject to a maximum height of 10m above ground level. The proposed Overhead Electric Power/Transmission Line is restricted to a maximum of 40m above ground level.

The above statement is **conditional to the developer**, providing the SACAA with the "as built" parameters of the facility, which includes the height of the pylon structures conveying power generated by the facility.

This conditional approval is valid for 5 years from the date of this letter.

Note that this SACAA letter of no objection does not substitute or replace other approvals which may be required by the applicant.

Yours truly,

SOUTH AFRICAN

CIVIL AVIATION AUTHORITY

**Harry Roberts** 

**Obstacle Specialist** 

PANS-OPS (Procedures for <u>Air Navigation</u> Services – Aircraft Operations) Air Navigation Services

Tel: +27 11 545 1071 | Mobile: +27 79 505 8417 |

Email: robertsh@caa.co.za | www.caa.co.za

Board Members: Mr Smunda Mokoena (Chairperson); Professor Ntombizozuko Dyani-Mhango; Major-General Nhlanhla Lucky Job Ngema; Ms Lizeka Dlepu; Adv Roshan R Dehal; Ms Doris Dondur; Mr Mongezi India; DCA: Ms Poppy Khoza; Company Secretary: Ms Nivashnee Naraindath

## Marais, Wanda

From: John GeerinJH@eskom.co.za>

**Sent:** 15 November 2016 01:12 PM

**To:** Marais, Wanda

**Subject:** RE: REQUEST FOR COMMENT: Proposed 75 MW Kloofsig Solar PV Energy Facility,

Northern Cape.

**Attachments:** Renewable Energy Generation Plant Setbacks to Eskom Infrastructure - Signed.pdf;

Eskom requirements for work in or near Eskom servitudes SOLAR (3).doc

Please find attached Eskom requirements for works at or near Eskom infrastructure.

## Kind regards

John Geeringh (Pr. Sci. Nat.) Senior Consultant Environmental Management

Eskom GC: Land Development Megawatt Park D1Y39 P O Box 1091 Johannesburg 2000

Tel: 011 516 7233 Fax: 086 661 4064 Cell: 083 632 7663

From: Marais, Wanda [mailto:WMarais@srk.co.za]

Sent: 08 November 2016 11:07 AM

To: John Geeringh

Cc: Rump, Nicola; Killian, Karien

Subject: REQUEST FOR COMMENT: Proposed 75 MW Kloofsig Solar PV Energy Facility, Northern Cape.

Importance: High

Dear John,

## Proposed 75 MW Kloofsig Solar PV Energy Facility, Northern Cape.

Hope you are doing well.

We have been requested by the Department of Environmental Affairs (DEA) to notify you directly of this proposed solar energy facility in the vicinity of Petrusville, Northern Cape and to request you to submit comments for their consideration.

The most recent report released during this Environmental Impact Assessment (EIA) process is the Final Scoping Report.

Please find enclosed the Executive Summary of the Final Scoping Report for <u>each</u> of the 3 phases of the proposed 75 MW Kloofsig Energy Facility, Northern Cape. <u>Each phase is labelled Kloofsig 1, Kloofsig 2 and Kloofsig 3 respectively,</u> and is subject to a separate EIA process with **DEA Reference numbers** as follows:



## SCOT

**Technology** 

Title:

Renewable Energy Generation Unique Identifier:

Plant Setbacks to Eskom

Infrastructure

240-65559775

Alternative Reference Number:

N/A

Area of Applicability:

**Power Line** Engineering

Documentation Type:

Guideline

Revision:

0

**Total Pages:** 

8

Next Review Date:

N/A

Disclosure Classification:

CONTROLLED **DISCLOSURE** 

Compiled by

Approved by

Authorised by

J W Chetty

**Mechanical Engineer** 

V Naidoo

**Chief Engineer (Lines)** 

R A Vajeth

Acting Snr Manager (Lines)

Supported by SCOT/SC

R Vajeth

SCOT/SC/ Chairperson

240-65559775

Revision:

0

Page:

2 of 9

## **CONTENTS**

	Page
EXECUTIVE SUMMARY	3
1. INTRODUCTION	4
2. SUPPORTING CLAUSES	4
2.1 SCOPE 2.1.1 Purpose 2.1.2 Applicability 2.2 NORMATIVE/INFORMATIVE REFERENCES 2.2.1 Normative 2.2.2 Informative 2.3 DEFINITIONS 2.3.1 Disclosure Classification 2.4 ABBREVIATIONS 2.5 ROLES AND RESPONSIBILITIES 2.6 PROCESS FOR MONITORING 2.7 RELATED/SUPPORTING DOCUMENTS	
3. DOCUMENT CONTENT	
3.1 INTERNATIONAL SETBACK COMPARISON	7
4. AUTHORISATION	8
5. REVISIONS	8
6. DEVELOPMENT TEAM	9
FIGURES	
Figure 1: Horizontal Axis Wind Turbine	8

Wind Turbine Eskom Setbacks

Unique Identifier:

240-65559775

Revision: Page:

3 of 9

## **EXECUTIVE SUMMARY**

In recent decades, the use of wind turbines, concentrated solar plants and photovoltaic plants have been on the increase as it serves as an abundant source of energy. This document specifies setbacks for wind turbines and the reasons for these setbacks from infrastructure as well as setbacks for concentrated solar plants and photovoltaic plants. Setbacks for wind turbines employed in other countries were compared and a general setback to be used by Eskom was suggested for use with wind turbines and other renewable energy generation plants.

Wind Turbine Eskom Setbacks

Unique Identifier:

240-65559775

Revision: Page:

4 of 9

1. INTRODUCTION

During the last few decades, a large amount of wind turbines have been installed in wind farms to accommodate for the large demand of energy and depleting fossil fuels. Wind is one of the most abundant sources of renewable energy. Wind turbines harness the energy of this renewable resource for integration in electricity networks. The extraction of wind energy is its primary function and thus the aerodynamics of the wind turbine is important. There are many different types of wind turbines which will all exhibit different wind flow characteristics. The most common wind turbine used commercially is the Horizontal Axis Wind Turbine. Wind flow characteristics of this turbine are important to analyse as it may have an effect on surrounding infrastructure.

Wind turbines also cause large turbulence downwind that may affect existing infrastructure. Debris or parts of the turbine blade, in the case of a failure, may be tossed behind the turbine and may lead to damage of infrastructure in the wake path.

This document outlines the minimum distances that need to be introduced between a wind turbine and Eskom infrastructure to ensure that debris and / or turbulence would not negatively impact on the infrastructure.

Safety distances of wind turbines from other structures as implemented by other countries were also considered and the reasons for their selection were noted.

Concentrated solar plants and photovoltaic plants setbacks away from substations were also to be considered to prevent restricting possible power line access routes to the substation.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document provides guidance on the safe distance that a wind turbine should be located from any Eskom power line or substation. The document specifies setback distances for transmission lines (220 kV to 765 kV), distribution lines (6.6 kV to 132 kV) and all Eskom substations. Setbacks for concentrated solar plants and photovoltaic plants are also specified away from substations.

2.1.1 Purpose

Setbacks for wind turbines and power lines / substations are required for various reasons. These include possible catastrophic failure of the turbine blade that may release fragments and which may be thrown onto nearby power lines that may result in damage with associated unplanned outages. Turbulence behind the turbine may affect helicopter flight during routine Eskom live line maintenance and

240-65559775

Revision: Page:

5 of 9

inspections that may lead to safety risk of the aircraft / personnel. Concentrated solar plants and photovoltaic plants setback away from substations were required to prevent substations from being boxed in by these renewable generation plants limiting line route access to the substations.

## 2.1.2 Applicability

This document is applicable to the siting of all new and existing wind turbines, concentrated solar plants and photovoltaic plants near power lines and substations.

#### 2.2 NORMATIVE/INFORMATIVE REFERENCES

#### 2.2.1 Normative

- 1. <a href="http://www.envir.ee/orb.aw/class=file/action=preview/id=1170403/Hiiumaa+turbulence+impact+">http://www.envir.ee/orb.aw/class=file/action=preview/id=1170403/Hiiumaa+turbulence+impact+</a> EMD.pdf.
- 2. http://www.energy.ca.gov/2005publications/CEC-500-2005-184/CEC-500-2005-184.PDF
- 3. <a href="http://www.adamscountywind.com/Revised%20Site/Windmills/Adams%20County%20Ordinance/Adams%20County%20Ord.htm">http://www.adamscountywind.com/Revised%20Site/Windmills/Adams%20County%20Ordinance/Adams%20County%20Ord.htm</a>
- 4. <a href="http://www.dsireusa.org/incentives/incentive.cfm?Incentive">http://www.dsireusa.org/incentives/incentive.cfm?Incentive</a> Code=PA11R&RE=1&EE=1
- 5. <a href="http://www.wind-watch.org/documents/european-setbacks-minimum-distance-between-wind-turbines-and-habitations/">http://www.wind-watch.org/documents/european-setbacks-minimum-distance-between-wind-turbines-and-habitations/</a>
- 6. http://www.publications.parliament.uk/pa/ld201011/ldbills/017/11017.1-i.html
- 7. http://www.caw.ca/assets/pdf/Turbine Safety Report.pdf
- 8. Rogers J, Slegers N, Costello M. (2011) A method for defining wind turbine setback standards. Wind energy 10.1002/we.468

#### 2.2.2 Informative

None

## 2.3 DEFINITIONS

Definition	Description	
Setback	The minimum distance between a wind turbine and boundary line/dwelling/road/infrastructure/servitude etc.	
Flicker	Effect caused when rotating wind turbine blades periodically cast shadows	
Tip Height	The total height of the wind turbine ie. Hub height plus half rotor diameter (see Figure1)	

240-65559775

Revision: Page:

6 of 9

#### 2.3.1 Disclosure Classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

#### 2.4 ABBREVIATIONS

Abbreviation	Description
None	

#### 2.5 ROLES AND RESPONSIBILITIES

All personnel involved in the positioning wind turbines, concentrated solar plants and photovoltaic plants near power lines/substations must follow the setbacks outlined in this guideline.

## 2.6 PROCESS FOR MONITORING

Approval by Eskom in writing.

## 2.7 RELATED/SUPPORTING DOCUMENTS

None

#### 3. DOCUMENT CONTENT

## 3.1 INTERNATIONAL SETBACK COMPARISON

Wind Turbine setbacks employed by various countries were considered. It was found that setbacks were determined for various reasons that include noise, flicker, turbine blade failure and wind effects. The distances (setbacks) varied based on these factors and were influenced by the type of infrastructure

Wind turbine setbacks varied for roads, power lines, dwellings, buildings and property and it was noted that the largest setbacks were employed for reasons of noise and flicker related issues [1-7]. Very few countries specified setbacks for power lines.

The literature survey [1-7], yielded information about studies and experiments were conducted to determine the distance that a broken fragment from a wind turbine might be thrown. Even though of low probability of hitting a power line [5.0x10<sup>-5</sup> [8]], the distances recorded were significant [750m [8]]

Setbacks were thus introduced to prevent any damage to Eskom infrastructure.

#### Wind Turbine Eskom Setbacks

Unique Identifier:

240-65559775

Revision: Page:

7 of 9

Wind turbines may also cause changes in wind patterns with turbulent effects behind the hub. These actors dictate the wind turbine setbacks specified in this document.

Concentrated solar plants and photovoltaic plants also can limit access into the substation for power lines of all voltages. A setback distance must therefore be employed to prevent the substation from being boxed in by these generation plants. These setback distances are specified in this document.

## 3.2 ESKOM REQUIRED SETBACKS

- Eskom requires a setback distance of 3 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for transmission lines.
- Eskom requires a setback distance of 1 times the tip height of the wind turbine from the edge of the closest Eskom servitude (including vacant servitudes) for distribution Lines.
- Eskom must be informed of any proposed wind turbine, concentrated solar plants and photovoltaic activity within a 5 km radius of a substation. No wind turbine structure shall be built within a 2 km radius of the closest point of the substation. Where concentrated solar plants and photovoltaic structures fall within a 2 km radius of the closest point of a substation, Eskom should be informed in writing during the planning phase of the construction of such plant or structure.
- Applicants must show that Eskom radio telecommunication systems (mainly microwave systems)
   will not be affected in any way by wind turbines.

Unique Identifier: 240-65559775

Revision: 0
Page: 8 of 9

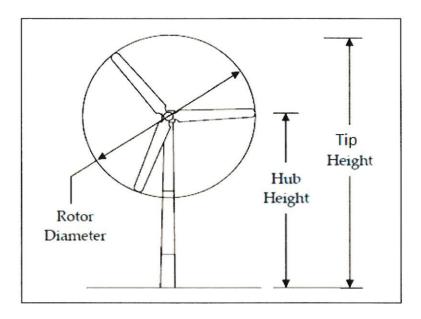


Figure 1: Horizontal Axis Wind Turbine [2]

## 4. AUTHORISATION

This document has been seen and accepted by:

Name & Surname	Designation		
V Naidoo	Chief Engineer		
Dr P H Pretorius	Electrical Specialist		
J Geeringh	Snr Consultant Environ Mngt		
B Haridass	Snr Consultant Engineer		
R A Vajeth	Acting Snr Manager (Lines)		

## 5. REVISIONS

Date	Rev.	Compiler	Remarks
November 2013	0	J W Chetty	First Publication - No renewable energy generation plant setback specification in existence

240-65559775

Revision: Page:

9 of 9

## 6. DEVELOPMENT TEAM

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

Jonathan W Chetty (Mechanical Engineer)

Vivendhra Naidoo (Chief Engineer)

Dr Pieter H Pretorius (Electrical Specialist)

John Geeringh (Snr Consultant Environ Mngt)

Bharat Haridass (Snr Consultant Engineer)

Riaz A Vajeth (Acting Snr Manager (Lines))

## Eskom requirements for work in or near Eskom servitudes.

- 1. Eskom's rights and services must be acknowledged and respected at all times.
- 2. Eskom shall at all times retain unobstructed access to and egress from its servitudes.
- 3. Eskom's consent does not relieve the developer from obtaining the necessary statutory, land owner or municipal approvals.
- 4. Any cost incurred by Eskom as a result of non-compliance to any relevant environmental legislation will be charged to the developer.
- 5. If Eskom has to incur any expenditure in order to comply with statutory clearances or other regulations as a result of the developer's activities or because of the presence of his equipment or installation within the servitude restriction area, the developer shall pay such costs to Eskom on demand.
- 6. The use of explosives of any type within 500 metres of Eskom's services shall only occur with Eskom's previous written permission. If such permission is granted the developer must give at least fourteen working days prior notice of the commencement of blasting. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued in terms of the blasting process. It is advisable to make application separately in this regard.
- 7. Changes in ground level may not infringe statutory ground to conductor clearances or statutory visibility clearances. After any changes in ground level, the surface shall be rehabilitated and stabilised so as to prevent erosion. The measures taken shall be to Eskom's satisfaction.
- 8. Eskom shall not be liable for the death of or injury to any person or for the loss of or damage to any property whether as a result of the encroachment or of the use of the servitude area by the developer, his/her agent, contractors, employees, successors in title, and assignees. The developer indemnifies Eskom against loss, claims or damages including claims pertaining to consequential damages by third parties and whether as a result of damage to or interruption of or interference with Eskom's services or apparatus or otherwise. Eskom will not be held responsible for damage to the developer's equipment.
- 9. No mechanical equipment, including mechanical excavators or high lifting machinery, shall be used in the vicinity of Eskom's apparatus and/or services, without prior written permission having been granted by Eskom. If such permission is granted the developer must give at least seven working days' notice prior to the commencement of work. This allows time for arrangements to be made for supervision and/or precautionary instructions to be issued by the relevant Eskom Manager

Note: Where and electrical outage is required, at least fourteen work days are required to arrange it.

- 10. Eskom's rights and duties in the servitude shall be accepted as having prior right at all times and shall not be obstructed or interfered with.
- 11. Under no circumstances shall rubble, earth or other material be dumped within the servitude restriction area. The developer shall maintain the area concerned to Eskom's satisfaction. The developer shall be liable to Eskom for the cost of any remedial action which has to be carried out by Eskom.
- 12. The clearances between Eskom's live electrical equipment and the proposed construction work shall be observed as stipulated by *Regulation 15* of the *Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).*
- 13. Equipment shall be regarded electrically live and therefore dangerous at all times.
- 14. In spite of the restrictions stipulated by Regulation 15 of the Electrical Machinery Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), as an additional safety precaution, Eskom will not approve the erection of houses, or structures occupied or frequented by human beings, under the power lines or within the servitude restriction area.
- 15. Eskom may stipulate any additional requirements to highlight any possible exposure to Customers or Public to coming into contact or be exposed to any dangers of Eskom plant.
- 16. It is required of the developer to familiarise himself with all safety hazards related to Electrical plant.
- 17. Any third party servitudes encroaching on Eskom servitudes shall be registered against Eskom's title deed at the developer's own cost. If such a servitude is brought into being, its existence should be endorsed on the Eskom servitude deed concerned, while the third party's servitude deed must also include the rights of the affected Eskom servitude.

John Geeringh (Pr Sci Nat)

Senior Consultant Environmental Management

Eskom GC: Land Development