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**CONSULTING ENGINEERS ELECTRICAL, MECHANICAL, ENERGY**

Reg No. 99/006693/07

Our Ref: R4666C/L003

Your Ref:

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Date: 2015-09-18

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Certified BEE Level 3 Contributor

**SEDGEFIELD: THE HILL**  
**ELECTRICAL BULK SERVICES REPORT**  
**REV 002**

**SCOPE**

The report covers the medium voltage bulk electrical supply to the above-mentioned proposed development and is intended to inform the environmental scoping process.

The electrical bulk supply requirements are based on the layout plan received from VPM Planning and our drawing R4666C-HV1\_Rev B attached to this report.

**EXISTING MUNICIPAL NETWORK**

The network in the area belongs to Knysna Municipality. There are two 11kV overhead lines traversing the site. The lines are supplied via the existing 11kV network and belongs to the Knysna Municipality.

**Existing Eskom Infrastructure**

The 22m servitude located to the south of the property is not located on this development except for a small section which crosses the property in the south western corner (marked on the drawing attached)

**PROPOSED NETWORK**

Due to the size of the development as well as its location, it will be necessary to supply to internal 11kV network from the existing 66/11kV substation.

Our meeting with the Knysna Municipality's Master Planner, Messrs BDE Electrical Consultants refers:

The site will be supplied via an underground 11kV cable connected to the system at the 66/11kV substation.

There is sufficient space within the substation building to accommodate the required 11kV switch.

In order to form a ring feed, the other end of the underground cable will be connected to the proposed SS-Sedgefield East substation.

This substation has been designed to accommodate the additional 11kV switch required.

The internal 11kV cable will supply 5 mini-substations, located at the load centres of each distribution area.

**IMPACT**

**Registered Member : Consulting Engineers South Africa (CESA)**

**DIRECTORS:** A.H. SILBERBAUER Pr Tech Eng, R.G. HALL Pr Eng B.Sc. Eng, C.H. KOCH Pr Eng B.Eng, T.H. HEYNS Pr Tech Eng  
W.J. BADENHORST Pr Tech Eng



Impaction on existing electricity consumers

The development will have no detrimental effect on the quality of supply to the existing consumers due to the fact that the development will be supplied by its own ring feed directly from the 66/11kV substation.

The network reliability will in fact be enhanced since the 11kV cable through the development will be sized to accommodate the additional load when acting as a "primary feeder" to SS-Sedgefield East.

Impact on Municipal Operating Costs

The development will have no negative effect on electrical costs of the Municipality since the complete electrical infrastructure required for the development will be supplied and installed by the Developer.

Impact on the Environment

The proposed network will improve the area due to the replacement of the existing overhead lines on the property with underground cable.

**CONCLUSION**

The development, from an electrical reticulation point of view, has been included in the Master Plan and the existing Municipal 66/11kV Substation has sufficient capacity to accommodate the load which is estimated at 750kVA, once fully developed.

Yours faithfully

A handwritten signature in black ink, appearing to read 'R G Hall', with a stylized flourish extending from the end.

**R G HALL Pr Eng**  
De Villiers & Moore (Pty) Ltd