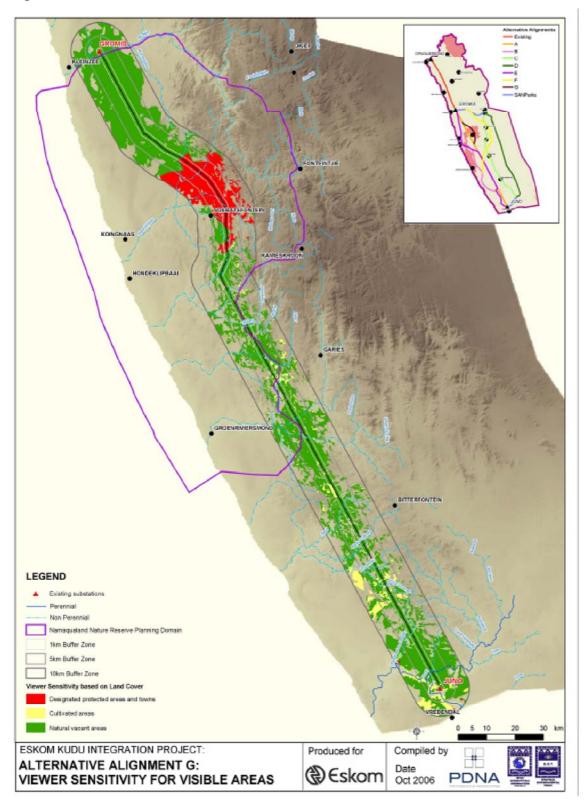
Figure 19: Alternative G



APPENDIX 2

Figure 20: Simulation 1

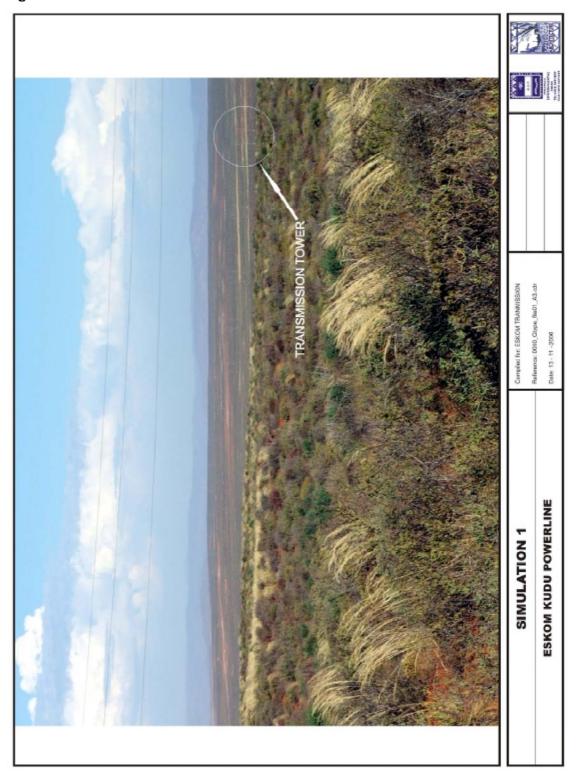
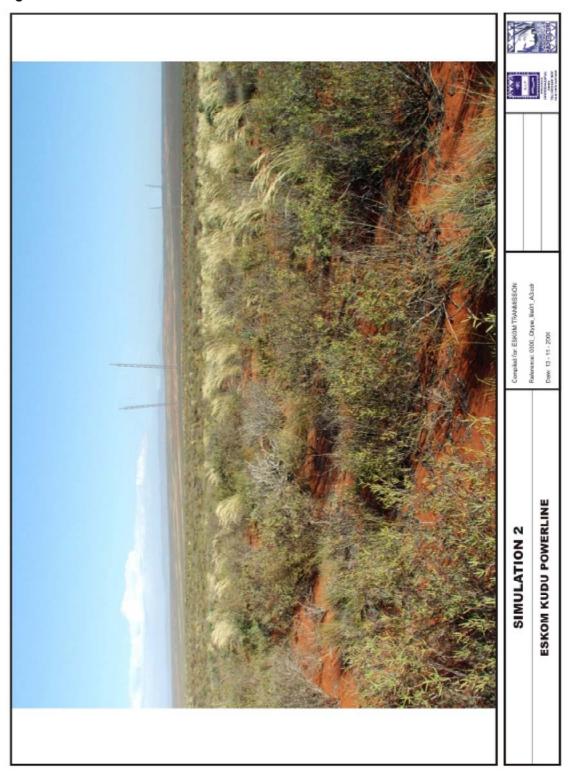


Figure 21: Simulation 2



GLOSSARY OF TERMS

Aesthetics

The science or philosophy concerned with the quality of sensory experience. (ULI, 1980)

Horizon contour

A line that encircles a development site and that follows ridgelines where the sky forms the backdrop and no landform is visible as a background. This is essentially the skyline that when followed through the full 360-degree arc as viewed from a representative point on the site defines the visual envelope of the development. This defines the boundary outside which the development would not be visible.

Landscape characterisation/ character

This covers the gathering of information during the desktop study and field survey work relating to the existing elements, features, and extent of the landscape (character). It includes the analysis and evaluation of the above and the supporting illustration and documentary evidence.

Landscape condition

Refers to the state of the landscape of the area making up the site and that of the study area in general. Factors affecting the condition of the landscape can include the level maintenance and management of individual landscape elements such as buildings, woodlands etc and the degree of disturbance of landscape elements by non-characteristics elements such as invasive tree species in a grassland or car wrecks in a field.

Landscape impact

Changes to the physical landscape resulting from the development that include; the removal of existing landscape elements and features, the addition of new elements associated with the development and altering of existing landscape elements or features in such as way as to have a detrimental affect on the value of the landscape.

Landscape unit

A landscape unit can be interpreted as an "outdoor room" which are enclosed by clearly defined landforms or vegetation. Views within a landscape unit are contained and face inward.

Sense of place

That distinctive quality that makes a particular place memorable to the visitor, which can be interpreted in terms of the visual character of the landscape. A more emotive sense of place is that of local identity and attachment for a place "which begins as undifferentiated space [and] becomes place as we get to know it better and endow it with value" (Tuan 1977)².

Viewer exposure

The extent to which viewers are exposed to views of the landscape in which the proposed development will be located. Viewer exposure considers the visibility of the site, the viewing conditions, the viewing distance, the number of viewers affected, the activity of the viewers (tourists or workers) and the duration of the views.

Viewer sensitivity

The assessment of the receptivity of viewer groups to the visible landscape elements and visual character and their perception of visual quality and value. The sensitivity of viewer groups depends on their activity and awareness within the affected landscape, their preferences, preconceptions and their opinions.

Visual absorption capacity (VAC)

The inherent ability of a landscape to accept change or modification to the landscape character and/or visual character without diminishment of the visual quality or value, or the loss of visual amenity. A high VAC rating implies a high ability to absorb visual impacts while a low VAC implies a low ability to absorb or conceal visual impacts.

² Cited in Climate Change and Our 'Sense of Place', http://www.ucsusa.org/greatlakes/glimpactplace.html

Visual amenity

The notable features such as hills or mountains or distinctive vegetation cover such as forests and fields of colour that can be identified in the landscape and described. Also included are recognised views and viewpoints, vistas, areas of scenic beauty and areas that are protected in part for their visual value.

Visual character

This addresses the viewer response to the landscape elements and the relationship between these elements that can be interpreted in terms of aesthetic characteristics such as pattern, scale, diversity, continuity and dominance.

Visual contour

The outer perimeter of the visual envelope determined from the site of the development. The two dimensional representation on plan of the horizon contour.

Visual contrast

The degree to which the physical characteristics of the proposed development differ from that of the landscape elements and the visual character. The characteristics affected typically include:

- Volumetric aspects such as size, form, outline and perceived density;
- Characteristics associated with balance and proportion such scale, diversity, dominance, continuity;
- · Surface characteristics such as colour, texture, reflectivity; and
- Luminescence or lighting.

Visual envelope

The approximate extent within which the development can be seen. The extent is often limited to a distance from the development within which views of the development are expected to be of concern.

Visual impact

Changes to the visual character of available views resulting from the development that include: obstruction of existing views; removal of screening elements thereby exposing viewers to unsightly views; the introduction of new elements into the viewshed experienced by visual receptors and intrusion of foreign elements into the viewshed of landscape features thereby detracting from the visual amenity of the area.

Visual impact assessment

A specialist study to determine the visual effects of a proposed development on the surrounding environment. The primary goal of this specialist study is to identify potential risk sources resulting from the project that may impact on the visual environment of the study area, and to assess their significance. These impacts include landscape impacts and visual impacts.

Visual magnitude

Product of the vertical and horizontal angles of an object to describe quantitatively the visual dimension of an object. (Iverson, 1985). The visual magnitude is best described in terms of visual arcs with a one minute arc usually considered as being the minimum resolution detectable by the human eye (equivalent to observing a 29mm ball at a distance of one hundred metres).

Visual quality

An assessment of the aesthetic excellence of the visual resources of an area. This should not be confused with the value of these resources where an area of low visual quality may still be accorded a high value. Typical indicators used to assess visual quality are vividness, intactness and unity. For more descriptive assessments of visual quality attributes such as variety, coherence, uniqueness, harmony, and pattern can be referred to.

Visual receptors

Includes viewer groups such as the local community, residents, workers, the broader public and visitors to the area, as well as public or community areas from which the development is visible. The existing visual amenity enjoyed by the viewers can be considered a visual receptor such that changes to the visual amenity would affect the viewers.

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Zone of influence

visual The extent of the area from which the most elevated structures of the proposed development could be seen and may be considered to be of interest (see visual envelope).

LEVEL OF CONFIDENCE

Table 11: Confidence level chart and description

CONFIDENCE LEVEL CHART					
	Information, knowledge and experience of the project				
Information, and knowledge of the study area		3b	2b	1b	
	За	9	6	3	
	2a	6	4	2	
	1a	3	2	1	

- 3a A high level of information is available of the study area in the form of recent aerial photographs, GIS data, documented background information and a thorough knowledge base could be established during site visits, surveys etc. The study area was readily accessible.
- 2a A moderate level of information is available of the study area in the form of aerial photographs GIS data and documented background information and a moderate knowledge base could be established during site visits, surveys etc. Accessibility to the study area was acceptable for the level of assessment.
- 1a Limited information is available of the study area and a poor knowledge base could be established during site visits and/or surveys, or no site visit and/or surveys were carried out.
- 3b A high level of information and knowledge is available of the **project** in the form of up-to-date and detailed engineering/architectural drawings, site layout plans etc. and the visual impact assessor is well experienced in this type of project and level of assessment.
- 2b A moderate level of information and knowledge is available of the **project** in the form of conceptual engineering/architectural drawings, site layout plans etc. and/or the visual impact assessor is moderately experienced in this type of project and level of assessment.
- 1b Limited information and knowledge is available of the project in the form of conceptual engineering/architectural drawings, site layout plans etc. and/or the visual impact assessor has a low experience level in this type of project and level of assessment. (Adapted from Oberholzer. B, 2005)

VISUAL RECEPTOR SENSITIVITY

Table 12: Visual receptor sensitivity

VISUAL RECEPTOR	DEFINITION				
SENSITIVITY	(BASED ON THE GLVIA 2 ND ED PP90-91)				
Exceptional	Views from major tourist or recreational attractions or viewpoints promoted for or related to appreciation of the landscape, or from important landscape features.				
	Users of all outdoor recreational facilities including public and local roads or tourist routes whose attention or interest may be focussed on the landscape;				
High	Communities where the development results in changes in the landscape setting or valued views enjoyed by the community;				
	Residents with views affected by the development.				
Moderate	People engaged in outdoor sport or recreation (other than appreciation of the landscape);				
	People at their place of work or focussed on other work or activity;				
Low	Views from urbanised areas, commercial buildings or industrial zones;				
	People travelling through or passing the affected landscape on transport routes.				
Negligible (Uncommon)	Views from heavily industrialised or blighted areas				

REFERENCES

BLM (Bureau of Land Management). (1986). <u>Handbook H-8431-1, Visual Resource Contrast Rating</u>. U.S. Department of the Interior BLM. http://www.blm.gov/nstc/VRM/vrmsys.html

Government Office of the South West - England (2006). <u>Using landscape sensitivity for renewable energy.</u> REvision 2010 — Empowering the region [Online]. http://www.oursouthwest.com/revision2010/lca_methodology_windbiomass.doc [Accessed 8 November 2006]

Landscape Institute and the Institute of Environmental Assessment and Management. (2002). <u>Guidelines for Landscape and Visual Impact Assessment (GLVIA)</u>. Second Edition, E & FN Spon Press.

M. Hill, J. Briggs, P. Minto, D. Bagnall, K. Foley, A.Williams. (March 2001). <u>Guide to Best Practice in Seascape Assessment</u>. Maritime (Ireland / Wales) INTERREG Programme- Building Bridges.

Oberholzer, B. (2005). <u>Guideline for involving visual and aesthetic specialists in EIA processes: Edition 1</u>. CSIR Report No ENV-S-C 2005 053 R. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs and Development Planning, Cape Town.

Swanwick, C. Department of Landscape, University of Sheffield and Land Use Consultants. (2002). <u>Landscape Character Assessment:: Guidance for England and Scotland</u>. The Countryside Agency / Scottish Natural Heritage.

Van Riet, W., Claassens, P., Van Rensburg, J., Van Viegen, T., Du Plessis, L. 1997. *Environmental Potential Atlas for South Africa.* The Department of Environmental Affairs and Tourism in conjunction with The Geographic Information Systems Laboratory CC and the University of Pretoria. J.L. van Schaik.

Van Rooyen, M.W. 2002. <u>Management of the old field vegetation in the Namaqua National Park, South Africa: conflicting demands of conservation and tourism.</u> Published paper from *The Geographical Journal*, Vol. 168, No.3, September 2002, pp. 211-223.

U.S.D.O.T., Federal Highway Administration, Office of Environmental Policy. (March 1981). <u>Visual Impact Assessment for Highway Projects</u>. U. S. Department of Transportation Washington D. C.

Urban Land Institute, 1980. Visual Resource Management 0510-1: Environmental Comment (May 1980). Washington D.C.