

**MOYENG ENERGY (PTY) LTD**

**RHEBOKSFONTEIN WIND ENERGY FACILITY POWER LINE  
PROPOSED REALIGNMENT OF NORTHERN ALTERNATIVE**

**ADDENDUM 2 TO THE VISUAL IMPACT ASSESSMENT**

**JANUARY 2016**

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**ENVIRONMENTAL PLANNING AND DESIGN**

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# **1 INTRODUCTION**

## **1.1 PROJECT DESCRIPTION**

Moyeng Energy (Pty) Ltd obtained environmental authorisation from the National Department of Environmental Affairs for the construction of the Rheboksfontein Wind Energy Facility and associated infrastructure in 2012. The site is located approximately 6-8 km west of the town of Darling within the Swartland Local Municipality, which is in turn part of the West Coast District Municipality of the Western Cape.

A 132kV power line connecting the wind energy facility to Aurora Substation was also authorised. Two grid connection alternative routes (northern and southern alignments) were considered in the initial EIA to connect the Rheboksfontein Wind Energy Facility and these options were assessed during the initial VIA process. These options included a connection to the Aurora substation near Hopefield. The length of the northern alignment is 41km and joins the *Ankerlig to Aurora 1 and 2 x 400kV* power lines linking into the Aurora transmission substation.

## **1.2 REASON FOR THE ADDENDUM REPORT**

Further to the environmental authorisation an alternative to the authorised alignment is proposed.

A series of deviations have been proposed to the Northern Alignment. Three deviations (A, B1 and B2) have been considered in an addendum report of June 2015

Two further deviations have now been proposed for consideration namely 1D and 1E.

Alignment 1E follows the alignment of the Northern Alternative that was assessed in the Original VIA. This runs parallel with and close to an existing 400KV power line for its entire length.

Alternative 1D generally follows Alignment 1E but it deviates to the east by approximately 4km over 10km of its southern section and it follows Alternative B2 over its northern section.

The objective of this addendum to the Visual Impact Assessment is to review the likely visual impacts associated with the proposed alignments 1D and 1E. Refer to Map for the location of the proposed alignments.

## **1.3 DOCUMENTS**

This addendum report must be read with The Visual Impact Assessment that was prepared for the proposed Rheboksfontein Wind Energy Facility Power Line by MetroGIS (Pty) Ltd, dated September 2013 and updated in March 2015. This document is referred to as the "original assessment".

This addendum report must also be read with an addendum report of June 2015 that was prepared by Afzelia. This document reviewed three alternative alignments for the northern section of the alignment.

The assessment methodology utilised for the addendum is the same as that used in the original Visual Impact Assessment in order that findings documents are readily comparable.

#### **1.4 FINDINGS OF THE ORIGINAL VISUAL IMPACT ASSESSEMENT AND THE ADDENDUM REPORT OF JULY 2015**

The original Visual Impact Assessment found that whilst neither of the proposed alternatives (northern or southern) were considered to be fatally flawed, the northern alignment was preferred from a visual impact perspective. This was primarily due to the generally remote location and the lack of sensitive visual receptors along the alignment. Furthermore, it is aligned adjacent to existing power line infrastructure for virtually its entire length. This alternative therefore adhered to the principle of confining the linear infrastructure within the region, rather than expanding it.

The Addendum Report of June 2015 generally supported the findings of the Original Visual Impact Assessment. It also reviewed three deviations of the northern alignment in its northern sector (A, B1 & B2).

The finding of the Addendum Report indicated that all three alternatives would be acceptable from a visual perspective but Alternative A, the eastern most alignment was preferable due to the fact that it directly impacted a more disturbed landscape and was a greater distance from the West Coast National Park.

#### **1.5 LEVEL OF ASSSSMENT**

Although not stated, the original assessment was a Level 3 Assessment in accordance with the Government of the Western Cape Guideline for Involving Visual and Aesthetic Specialists in EIA Processes Western Cape. The same level of assessment is therefore maintained in this document.

#### **1.6 PROCESS FOLLOWED**

A desktop analysis utilising the original assessment, aerial photography and Arc GIS mapping was conducted in order to familiarise the assessor with the site and to locate visual receptors and sensitive landscapes within the proposed site.

A site visit was conducted on the 18<sup>th</sup> and 19<sup>th</sup> of June 2015 where the findings from the desktop study were ground truthed.

An addendum to the initial visual impact assessment was conducted to compare the alternative alignments proposed for the deviation of the northern alignment.

#### **1.7 BACKGROUND OF SPECIALIST**

Jon Marshall qualified as a Landscape Architect in 1978. He is also a certified Environmental Impact Assessment Practitioner of South Africa. He has been involved in Visual Impact Assessment over a period of approximately 30 years. He has developed the necessary computer skills to prepare viewshed analysis and three dimensional modelling to illustrate impact assessments. He has undertaken visual impact assessments for major buildings, industrial development, mining and infrastructure

projects and has been involved in the preparation of visual guidelines for large scale developments.

A brief Curriculum Vitae outlining relevant projects is included as **Appendix I.**

## 2 VISUAL IMPACT ASSESSMENT

The assessment of Alternative 1E is extracted from the Original Visual Impact Assessment. This has been reviewed by the assessor.

The Assessment of Alternative 1D is based on information gathered during the review of deviations of the northern section of the alignment as well as the assessor's knowledge of the area and review of available mapping.

### 2.1. POTENTIAL VISUAL IMPACT ON USERS OF ARTERIAL AND SECONDARY ROADS IN CLOSE PROXIMITY TO THE PROPOSED POWER LINE.

Alternative 1E has the potential to have a **low** visual impact on road users travelling along the R315 and R45.

Alternative 1D will have a similar level of impact as 1E

**No mitigation of this impact is possible**, but measures are recommended as best practice. The table below illustrates this impact assessment.

**Table 1:** Visual impact on users of arterial roads in close proximity to the proposed power line.

<b>Nature of Impact:</b>		
Visual impact on users of arterial and secondary roads in close proximity to the proposed power line		
	<b>Alternative 1D</b>	<b>Alternative 1E</b>
<b>Extent</b>	Local <b>(4)</b>	Local <b>(4)</b>
<b>Duration</b>	Long term <b>(4)</b>	Long term <b>(4)</b>
<b>Magnitude</b>	Very high <b>(10)</b>	Very high <b>(10)</b>
<b>Probability</b>	Very Improbable <b>(1)</b>	Very Improbable <b>(1)</b>
<b>Significance</b>	Moderate <b>(18)</b>	Moderate <b>(18)</b>
<b>Status (positive, neutral or negative)</b>	Negative	Negative
<b>Reversibility</b>	Recoverable <b>(3)</b>	Recoverable <b>(3)</b>
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impacts be mitigated?</b>	No	
<b>Mitigation / Management:</b>		
<u>Planning:</u>		
➤ Retain / re-establish and maintain natural vegetation in all areas outside of the development footprint/servitude.		
<u>Operations:</u>		
➤ Maintain the general appearance of the servitude as a whole.		
<u>Decommissioning:</u>		
➤ Remove infrastructure not required for the post-decommissioning use of the servitude.		
➤ Rehabilitate all areas. Consult an ecologist regarding rehabilitation specifications.		
➤ Monitor rehabilitated areas post-decommissioning and implement remedial actions.		
<b>Cumulative impacts:</b>		
The construction of an additional power line, together with the existing power lines to the Aurora substation is likely to increase the potential cumulative visual impact of industrial type infrastructure within the region.		
<b>Residual impacts:</b>		
The visual impact will be removed after decommissioning, provided the power line infrastructure is removed. Failing this, the visual impact will remain.		

## 2.2 POTENTIAL VISUAL IMPACT ON RESIDENTS OF HOMESTEADS IN CLOSE PROXIMITY TO THE PROPOSED POWER LINE.

Alternative 1D is expected to have a potential visual impact on one homestead (*Skilpadfontein*) in close proximity to the alignment is expected to be of **moderate** significance, due to the presence of much larger existing power line infrastructure at this location.

Alternative 1E is aligned away from *Skilpadfontein* but instead is likely to impact on the homestead of *Burgerspan*.

As *Skilpadsfontein* is impacted currently by the existing 400kV overhead power line and *Burgerspan* is not, affecting a new homestead is likely to greater impact than one that is already impacted.

Mitigation might be considered in the form of aligning the new 132kV power line to the east of the 400kV line.

Other measures are recommended as best practice. The table below illustrates this impact assessment.

**Table 2:** Visual impact on residents of homesteads and settlements in close proximity to the proposed facility.

<b>Nature of Impact:</b>		
Visual impact on residents of homesteads and settlements in close proximity to the proposed facility		
	<b>Alternative 1D</b>	<b>Alternative 1E</b>
<b>Extent</b>	Local <b>(4)</b>	Local <b>(4)</b>
<b>Duration</b>	Long term <b>(4)</b>	Long term <b>(4)</b>
<b>Magnitude</b>	Very high <b>(10)</b>	Very high <b>(10)</b>
<b>Probability</b>	Highly probable <b>(4)</b>	Probable <b>(3)</b>
<b>Significance</b>	High <b>(72)</b>	Moderate <b>(54)</b>
<b>Status (positive or negative)</b>	Negative	Negative
<b>Reversibility</b>	Recoverable <b>(3)</b>	Recoverable <b>(3)</b>
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impacts be mitigated?</b>	No	
<b>Mitigation / Management:</b>		
<u>Planning:</u>		
➤ Retain/re-establish and maintain natural vegetation in all areas outside of the development footprint/servitude.		
<u>Operations:</u>		
➤ Maintain the general appearance of the servitude as a whole.		
<u>Decommissioning:</u>		
➤ Remove infrastructure not required for the post-decommissioning use of the servitude.		
➤ Rehabilitate all areas. Consult an ecologist regarding rehabilitation specifications.		
➤ Monitor rehabilitated areas post-decommissioning and implement remedial actions.		
<b>Cumulative impacts:</b>		
The construction of an additional power line, together with the existing power lines to the Aurora substation is likely to increase the potential cumulative visual impact of industrial type infrastructure within the region.		
<b>Residual impacts:</b>		
The visual impact will be removed after decommissioning, provided the power line infrastructure is removed. Failing this, the visual impact will remain.		

### 2.3 POTENTIAL VISUAL IMPACT ON SENSITIVE VISUAL RECEPTORS WITHIN THE REGION.

The visual impact on the users of roads and the residents of towns, settlements and homesteads within the region (i.e. beyond the 5km radius) is expected to be **low** for both the proposed alignments.

**Table 3:** Visual impact on sensitive visual receptors within the region.

<b>Nature of Impact:</b> Visual impact on sensitive visual receptors within the region		
	<b>Alternative 1D</b>	<b>Alternative 1E</b>
<b>Extent</b>	Regional <b>(3)</b>	Regional <b>(3)</b>
<b>Duration</b>	Long term <b>(4)</b>	Long term <b>(4)</b>
<b>Magnitude</b>	Low <b>(4)</b>	Low <b>(4)</b>
<b>Probability</b>	Improbable <b>(2)</b>	Improbable <b>(2)</b>
<b>Significance</b>	Low <b>(22)</b>	Low <b>(22)</b>
<b>Status (positive or negative)</b>	Negative	Negative
<b>Reversibility</b>	Recoverable <b>(3)</b>	Recoverable <b>(3)</b>
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impacts be mitigated?</b>	No	
<b>Mitigation / Management:</b>		
<u>Planning:</u>		
➤ Retain/re-establish and maintain natural vegetation in all areas outside of the development footprint/servitude.		
<u>Operations:</u>		
➤ Maintain the general appearance of the servitude as a whole.		
<u>Decommissioning:</u>		
➤ Remove infrastructure not required for the post-decommissioning use of the site/servitude.		
➤ Rehabilitate all areas. Consult an ecologist regarding rehabilitation specifications.		
➤ Monitor rehabilitated areas post-decommissioning and implement remedial actions.		
<b>Cumulative impacts:</b>		
The construction of an additional power line to the Aurora substation is likely to increase the potential cumulative visual impact of industrial type infrastructure within the region.		
<b>Residual impacts:</b>		
The visual impact will be removed after decommissioning, provided the power line infrastructure is removed. Failing this, the visual impact will remain.		

## 2.4 CONSTRUCTION IMPACTS

### Potential visual impact of construction on sensitive visual receptors in close proximity to the proposed power line.

During construction, there may be a noticeable increase in heavy vehicles utilising the roads to the development site that may cause, at the very least, a visual nuisance to other road users and land owners in the area.

Access to alignment 1E will be along the existing power line servitude and very limited removal of vegetation cover is expected and no new access roads are required. There are also a very limited number of observers present along the length of the alignment, further negating potential visual impacts. This anticipated impact is likely to be of **low** significance.

Access to alignment 1D will also generally be along the existing servitude, however it will deviate over two reasonably substantial sections. This will result in the need to open up new access roads. A moderate impact is therefore anticipated.

**Table 4:** Visual impact of construction on sensitive visual receptors in close proximity to the proposed power line.

<b>Nature of Impact:</b> Visual impact of construction on sensitive visual receptors in close proximity to the proposed power line.		
	<b>Alternative 1D</b>	<b>Alternative 1E</b>
<b>Extent</b>	Local <b>(4)</b>	Local <b>(4)</b>
<b>Duration</b>	Long term <b>(4)</b>	Long term <b>(4)</b>
<b>Magnitude</b>	Moderate <b>(6)</b>	Low <b>(4)</b>
<b>Probability</b>	Probable <b>(3)</b>	Improbable <b>(2)</b>
<b>Significance</b>	Moderate <b>(42)</b>	Low <b>(24)</b>
<b>Status (positive or negative)</b>	Negative	Negative
<b>Reversibility</b>	Recoverable <b>(3)</b>	Recoverable <b>(3)</b>
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impacts be mitigated?</b>	Yes	
<b>Mitigation:</b>		
<u>Planning:</u>		
➤ Retain and maintain natural vegetation in all areas outside of the development footprint/servitude.		
<u>Construction:</u>		
➤ Ensure that vegetation is not unnecessarily removed during the construction period.		
➤ Reduce the construction period through careful logistical planning and productive implementation of resources.		
➤ Plan the placement of lay-down areas and temporary construction equipment camps in order to minimise vegetation clearing (i.e. in already disturbed areas) wherever possible.		
➤ Restrict the activities and movement of construction workers and vehicles to the immediate construction site and existing access roads.		
➤ Ensure that rubble, litter, and disused construction materials are appropriately stored (if not removed daily) and then disposed regularly at licensed waste facilities.		
➤ Reduce and control construction dust using approved dust suppression techniques as and when required (i.e. whenever dust becomes apparent).		
➤ Restrict construction activities to daylight hours whenever possible in order to reduce lighting impacts.		
➤ Rehabilitate all disturbed areas immediately after the completion of construction works.		
<b>Cumulative impacts:</b> None.		
<b>Residual impacts:</b> None, provided rehabilitation works are carried out as specified.		

## 2.5 VISUAL IMPACT ASSESSMENT: SECONDARY IMPACTS

### Potential visual impact of the proposed power line on the visual quality of the landscape and sense of place of the region.

Sense of place refers to a unique experience of an environment by a user, based on his or her cognitive experience of the place. Visual criteria, specifically the visual character of an area (informed by a combination of aspects such as topography, level of development, vegetation, noteworthy features, cultural / historical features, etc.), play a significant role.

An impact on the sense of place is one that alters the visual landscape to such an extent that the user experiences the environment differently, and more specifically, in a less appealing or less positive light.

The greater environment has a rural, undeveloped character and a pastoral appearance. These generally undeveloped landscapes are considered to have a high visual quality, except where urban development represents existing visual disturbances.

The anticipated visual impact alternative 1E on the regional visual quality, and by implication, on the sense of place, is expected to be of **low** significance. This is due to the relatively low viewer incidence along this alignment and the presence of existing power line infrastructure.

The impact of alternative 1D is expected to be slightly higher (**moderate significance**) than 1E due to its two deviations away from the existing 400kV servitude.

**No mitigation of this impact is possible**, but measures are recommended as best practice. The table below illustrates this impact assessment.

**Table 5:** Visual impact of the proposed power line on the visual quality of the landscape and sense of place of the region.

<b>Nature of Impact:</b>		
Visual impact of the proposed facility on the visual quality of the landscape and sense of place of the region		
	<b>Alternative 1D</b>	<b>Alternative 1E</b>
<b>Extent</b>	Local <b>(4)</b>	Local <b>(4)</b>
<b>Duration</b>	Long term <b>(4)</b>	Long term <b>(4)</b>
<b>Magnitude</b>	Moderate <b>(5)</b>	Low <b>(4)</b>
<b>Probability</b>	Probable <b>(3)</b>	Improbable <b>(2)</b>
<b>Significance</b>	Moderate <b>(39)</b>	Low <b>(24)</b>
<b>Status (positive or negative)</b>	Negative	Negative
<b>Reversibility</b>	Recoverable <b>(3)</b>	Recoverable <b>(3)</b>
<b>Irreplaceable loss of resources?</b>	No	No
<b>Can impacts be mitigated?</b>	No	
<b>Mitigation / Management:</b>		
<u>Planning:</u>		
➤ Retain / re-establish and maintain natural vegetation in all areas outside of the development footprint/servitude.		
<u>Operations:</u>		
➤ Maintain the general appearance of the power line servitude as a whole.		
<u>Decommissioning:</u>		
➤ Remove infrastructure not required for the post-decommissioning use of the site/servitude.		
➤ Rehabilitate all areas. Consult an ecologist regarding rehabilitation specifications.		
➤ Monitor rehabilitated areas post-decommissioning and implement remedial actions.		

**Cumulative impacts:**

The construction of an additional power line, together with the existing power lines to the Aurora substation is likely to increase the potential cumulative visual impact of industrial type infrastructure within the region.

**Residual impacts:**

The visual impact will be removed after decommissioning, provided the power line infrastructure is removed. Failing this, the visual impact will remain.

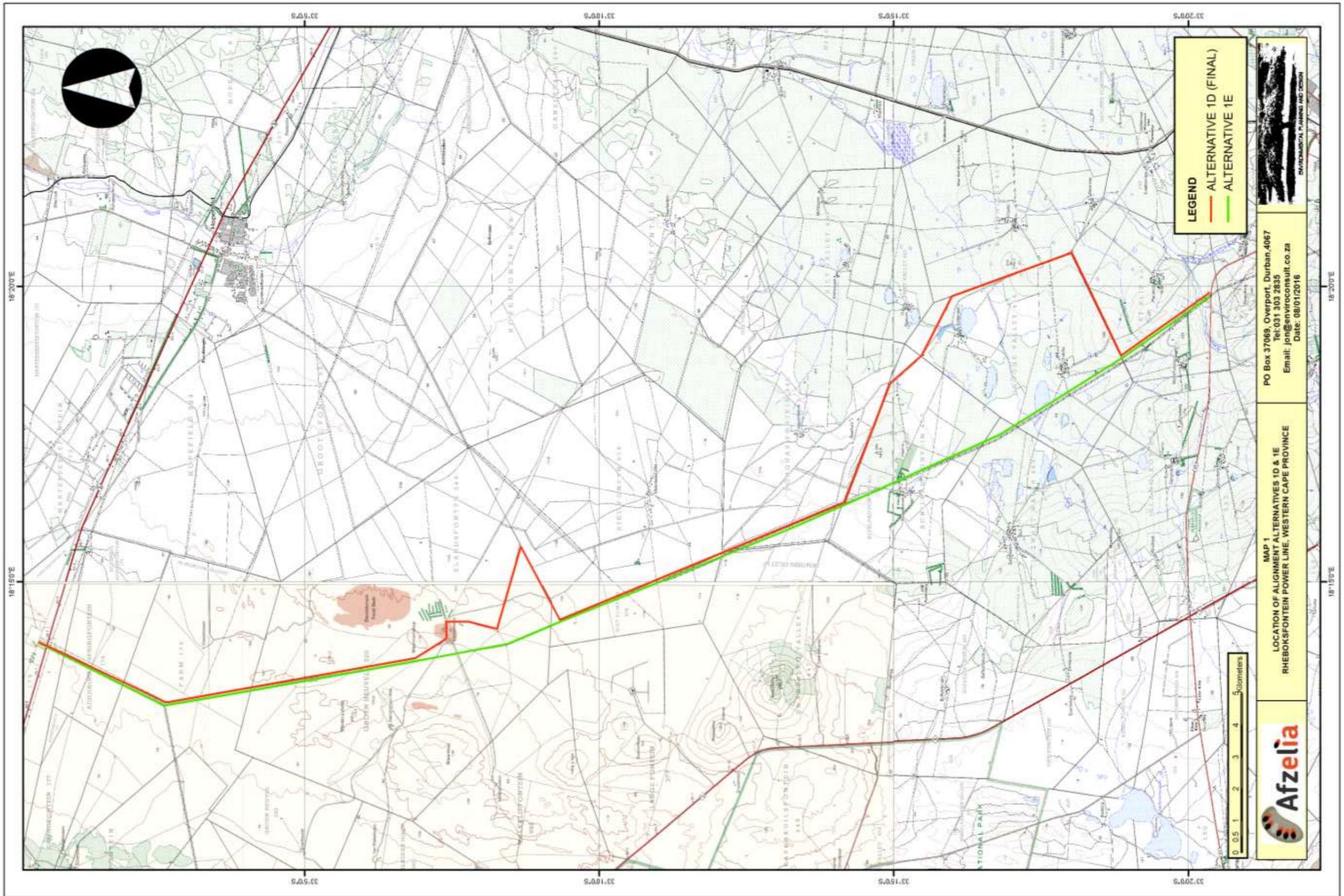
### **3 CONCLUSION**

The proposed power line will have a relatively small impact and is likely to be obvious within a narrow band extending to 2.5km either side of the alignment. If the viewer is aware of its existence it may be visible for up to 5km, however the likely impact on landscape quality is likely to be negligible over this extended distance.

The assessment indicates that both alternatives are likely to result in relatively low levels of impact. This indicates that neither alternative can be considered to be fatally flawed.

Due to alignment 1D having greater potential to impact on an area that is currently not impacted by overhead power lines as well as extending the impact of overhead power lines on a relatively unspoilt natural area of the West Coast National Park this alternative is not favoured from a visual impact perspective.

Due to the landscape in the vicinity of alternative 1E being impacted by 400kV overhead power line for its entire length this alternative is favoured on visual grounds.



**APPENDIX I**  
**SPECIALIST'S BRIEF CV**



ENVIRONMENTAL PLANNING AND DESIGN

**Name** JONATHAN MARSHALL  
**Nationality** British  
**Year of Birth** 1956  
**Specialisation** Landscape Architecture / Landscape & Visual Impact Assessment / Environmental Planning / Environmental Impact Assessment.

**Qualifications**

Education Diploma in Landscape Architecture, Gloucestershire College of Art and Design, UK (1979)  
Environmental Law, University of KZN (1997)

Professional Registered Professional Landscape Architect (South Africa)  
Chartered Member of the Landscape Institute (UK)  
Certified Environmental Assessment Practitioner of South Africa.  
Member of the International Association of Impact Assessment, South Africa

**Languages**

<u>English</u>	-	Speaking	-	Excellent
	-	Reading	-	Excellent
	-	Writing	-	Excellent

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**Key Experience**

Jon qualified as a Landscape Architect (Dip LA) at Cheltenham (UK) in 1979. He has also been a Certified Environmental Assessment Practitioner of South Africa since 2009.

During the early part of his career (1981 - 1990) He worked with Clouston (now RPS) in Hong Kong and Australia. During this period he was called on to undertake visual impact assessment (VIA) input to numerous environmental assessment processes for major infrastructure projects. This work was generally based on photography with line drawing superimposed to illustrate the extent of development visible.

He has worked in the United Kingdom (1990 - 1995) for a major supermarket chain and prepared CAD based visual impact assessments for public enquiries for new green field store development. He also prepared the VIA input to the environmental statement for the Cardiff Bay Barrage for consideration by the UK Parliament in the passing of the Barrage Bill.

His more recent VIA work (1995 to present) includes a combination of CAD and GIS based work for a new international airport to the north of Durban, new heavy industrial operations, overhead electrical transmission lines, mining operations in West Africa and numerous commercial and residential developments.

VIA work undertaken during the last eighteen months includes assessments for proposed new mine developments in Ghana and Guinea, numerous solar plant projects for Eskom and private clients, proposed wind farm development and a proposed tourism development within the Isimangaliso Wetland Park World Heritage Site .

Jon has also had direct experience of working with UNESCO representatives on a candidate World Heritage Site and has undertaken VIAs within and adjacent to other World Heritage Sites.

### **Relevant Visual Impact Assessment Projects**

1. **Gunstfontein Wind Farm.** Visual impact assessment for a proposed new wind farm in the Northern Cape.
2. **Isundu Sub- Station Development** - Visual impact assessment for a new major sub – station in KwaZulu Natal for Eskom.
3. **Bhangazi Lake Tourism Development** – Visual impact assessment for a proposed lodge development within the Isimangaliso Wetland Park World Heritage Site. This work is ongoing.
4. **Quarry Development for the Upgrade of Sani Pass** – Visual Impact Assessments for two proposed quarry developments on the edge of the uKhalamba-Drakensburg World Heritage Site.
5. **Mtubatuba to St Lucia Overhead Power Line** – Visual Impact Assessment for a proposed power line bordering on the Isimangaliso Wetland Park World Heritage Site for Eskom.
6. **St Faiths 400/132 kV Sub-Station and Associated Power Lines** - Visual Impact Assessment for a proposed new major sub-station and approximately 15km of overhead power line for Eskom.
7. **Clocolan to Ficksburg Overhead Power Line** – Visual Impact Assessment for a proposed power line for Eskom.
8. **Solar Plant Projects including Photovoltaic and Concentrating Solar Power Plants** – Numerous projects for Eskom and private clients in the Northern Cape, Limpopo, Mpumalanga and the Free State.
9. **Moorreesburg Wind Farm.** Visual impact assessment for a proposed new wind farm in the Western Cape.
10. **AngloGold Ashanti, Dokyiwa (Ghana)** – Visual Impact Assessment for proposed new Tailings Storage Facility at a mine site working with SGS as part of their EIA team.
11. **Camperdown Industrial Development** - Visual Impact Assessment for proposed new light industrial area to the north of Camperdown for a private client.
12. **Wild Coast N2 Toll Highway** – Peer review of VIA undertaken by another consultant.
13. **Gamma to Grass Ridge 765kv transmission line** – Peer review of VIA undertaken by another consultant.
14. **Gateway Shopping Centre Extension (Durban)** – Visual Impact Assessment for a proposed shopping centre extension in Umhlanga, Durban.
15. **Kouroussa Gold Mine (Guinea)** – Visual impact assessment for a proposed new mine in Guinea working with SGS as part of their EIA team.
16. **Mampon Gold Mine (Ghana)** - Visual impact assessment for a proposed new mine in Ghana working with SGS as part of their EIA team.
17. **Telkom Towers** – Visual impact assessments for numerous Telkom masts in KwaZulu Natal
18. **Dube Trade Port, Durban International Airport** – Visual Impact Assessment for a new international airport.
19. **Sibaya Precinct Plan** – Visual Impact Assessment as part of Environmental Impact Assessment for a major new development area to the north of Durban.
20. **Umdloti Housing** – Visual Impact Assessment as part of Environmental Impact Assessment for a

residential development beside the Umdloti Lagoon to the north of Durban.

21. **Tata Steel Ferrochrome Smelter** - Visual impact assessment of proposed new Ferrochrome Smelter in Richards Bay as part of EIA undertaken by the CSIR.
22. **Diamond Mine at Rooipoort Nature Reserve near Kimberley** – Visual impact assessment for a proposed diamond mine within an existing nature reserve for De Beers.
23. **Durban Solid Waste Large Landfill Sites** – Visual Impact Assessment of proposed development sites to the North and South of the Durban Metropolitan Area. The project utilised 3d computer visualisation techniques.
24. **Hillside Aluminium Smelter, Richards Bay** - Visual Impact Assessment of proposed extension of the existing smelter. The project utilised 3d computer visualisation techniques.
25. **Estuaries of KwaZulu Natal Phase 1 and Phase 2** – Visual character assessment and GIS mapping as part of a review of the condition and development capacity of eight estuary landscapes for the Town and Regional Planning Commission. The project was extended to include all estuaries in KwaZulu Natal.
26. **Signage Assessments** – Numerous impact assessments for proposed signage developments for Blast Media.
27. **Signage Strategy** – Preparation of an environmental strategy report for a national advertising campaign on National Roads for Visual Image Placements.
28. **Zeekoegatt, Durban** - Computer aided visual impact assessment. Acted as advisor to the Province of KwaZulu Natal in an appeal brought about by a developer to extend a light industrial development within a 60 metre building line from the National N3 Highway.
29. **La Lucia Mall Extension** - Visual impact assessment using three dimensional computer modelling / photo realistic rendering and montage techniques for proposed extension to shopping mall for public consultation exercise.
30. **Redhill Industrial Development** - Visual impact assessment using three dimensional computer modelling / photo realistic rendering and montage techniques for proposed new industrial area for public consultation exercise.
31. **Avondale Reservoir** - Visual impact assessment using three dimensional computer modelling / photo realistic rendering and montage techniques for proposed hilltop reservoir as part of Environmental Impact Assessment for Umgeni Water.
32. **Hammersdale Reservoir** - Visual impact assessment using three dimensional computer modelling / photo realistic rendering and montage techniques for proposed hilltop reservoir as part of Environmental Impact Assessment for Umgeni Water.
33. **Southgate Industrial Park, Durban** - Computer Aided Visual Impact Assessment and Landscape Design for AECI.
34. **Sainsbury's Bryn Rhos (UK)** - Computer Aided Visual Impact Assessment/ Planning Application for the development of a new store within the Green Wedge North of Swansea.
35. **Ynyston Farm Access (UK)** - Computer Aided Impact Assessment of visual intrusion of access road to proposed development in Cardiff for the Land Authority for Wales.
36. **Cardiff Bay Barrage (UK)** - Concept Design, Detail Design, Documentation, and Visual Input to

Environmental Statement for consideration by Parliament in the debate prior to the passing of the Cardiff Bay Barrage Bill. The work was undertaken for Cardiff Bay Development Corporation.

37. **A470, Cefn Coed to Pentrebach (UK)** - Preparation of frameworks for the assessment of the impact of the proposed alignment on the landscape for The Welsh Office.
38. **Sparkford to Ilchester Bye Pass (UK)** - The preparation of the landscape framework and the draft landscape plan for the Department of Transport.
39. **Green Island Reclamation Study (Hong Kong)** - Visual Impact Assessment of building massing, Urban Design Guidelines and Masterplanning for a New Town extension to Hong Kong Island.
40. **Route 3 (Hong Kong)** - Visual Impact Assessment for alternative road alignments between Hong Kong Island and the Chinese Border.
41. **China Border Link (Hong Kong)** - Visual Impact Assessment and initial Landscape Design for a new border crossing at Lok Ma Chau.
42. **Route 81, Aberdeen Tunnel to Stanley (Hong Kong)** - Visual Impact Assessment for alternative highway alignments on the South side of Hong Kong Island.