

VISUAL IMPACT ASSESSMENT

Brandvalley Wind Energy Facility, Western Cape, South Africa

Peer Review of Specialist Assessment

March 2016

Author: *Henry Holland*
Address: *8 Cathcart Street*
Grahamstown
6139
Cell. *082 2266689*

CURRICULUM VITAE – HENRY HOLLAND

Profession: GIS Consultant
Date of Birth: 26 December 1968

BIOGRAPHICAL SKETCH

Henry has been doing GIS related work since 1992 when he started his M.Sc. in Geology. Since finishing his Masters he worked in Angola establishing a GIS department for a diamond exploration company, after which he worked on a freelance basis for eight years doing GIS related work and computer programming. In 2005 he established the Mapthis Trust which provides geospatial services for a range of environmental and geological companies and projects. Henry has been involved in Visual Impact Assessments (VIAs) since 1997.

TERTIARY EDUCATION

| | | |
|-------------|--------------------|-------------------|
| 1996 | M. Sc. Geology/GIS | Rhodes University |
| 1986 | B.Sc. Hons | UOFS |

KEY EXPERIENCE

Specialist Practitioner: 2005 - Present

The table below presents an abridged list of Henry's project experience relevant to this proposal:

| Completion Date | Project description | Role | Client |
|-----------------|---|--------|----------------------------|
| 2016 | 29 Solar Dealesville PV EIA, Free State – VIA Reports | Author | CSIR |
| 2016 | Mulilo Nieuwehoop PV Phase 2 EIA, Northern Cape – VIA Reports | Author | CSIR |
| 2015 | Scatec Kenhardt PV EIA, Northern Cape – VIA report | Author | CSIR |
| 2015 | Vredenburg Landfill Extension BA, Western Cape – VIA Report | Author | Jeffares & Green (Pty) Ltd |
| 2015 | Umgeni Lovu and Tongaat Desalination Plants EIAs, KwaZulu-Natal – VIA Reports | Author | CSIR |
| 2015 | Inyanda-Roodeplaat WEF, Uitenhage, EC – VIA Report | Author | SRK |
| 2015 | OTGC Oil Storage Terminal BA – Visual Impact, Durban, KZN | Author | CSIR |
| 2014 | Mainstream Dealesville Solar Plants VIA, Freestate Province – VIA Report | Author | CSIR |
| 2014 | Mulilo Nieuwehoop PV Phase 1, Northern Cape – VIA Report | Author | CSIR |
| 2014 | Frontier SRMOP EIA, Saldanha, WC | Author | CSIR |
| 2013 | Ishwati Emoyeni Wind Energy Facility VIA, Western Cape | Author | CSIR |
| 2013 | Venter Fert Composting and Fertiliser Plant – VIA Report | Author | Public Process Consultants |
| 2013 | Kipeto Power Line, Kenya – VIA Report | Author | Kipeto Energy Ltd. |
| 2012 | Ngqura Manganese Export Facility VIA, Coega, Eastern Cape | Author | CSIR |
| 2012 | Toliara Sands Mining Project VIA, Toliara, Madagascar | Author | CES |
| 2012 | Mkuze Biofuel Power Plant VIA, Mkuze, KwaZulu-Natal | Author | CSIR |
| 2012 | Vleesbaai WEF VIA, Western Cape | Author | CSIR |
| 2012 | Saldanha Desalination Plant VIA, Saldanha Bay, Western Cape | Author | CSIR |
| 2012 | Mossel Bay WEF, Western Cape – VIA | Author | CES |

| Completion Date | Project description | Role | Client |
|-----------------|--|--------|-----------------------------------|
| | Report | | |
| 2012 | Keimoes Solar Energy Facility, NC – VIA Report | Author | CSIR |
| 2012 | Douglas Solar Energy Facility, NC – VIA Report | Author | CSIR |
| 2012 | Richards Bay WEF VIA, KZN | Author | CES |
| 2012 | Hluhluwe WEF VIA, KZN | Author | CES |
| 2012 | Plan8 Grahamstown Wind Farm VIA, Eastern Cape | Author | CES |
| 2012 | Kipeto Wind Farm VIA, Kenya | Author | Galetech Energy Developments Ltd. |
| 2011 | Coega IDZ Zone 12 Wind Farm – VIA Report | Author | CSIR |
| 2011 | Haverfontein Wind Farm, Mpumalanga – VIA Report | Author | CES |
| 2011 | Middleton Wind Farm, Cookhouse | Author | CES |
| 2011 | Broadlands PV Plant, Humansdorp | Author | CSIR |
| 2011 | Ubuntu Wind Farm, Jeffrey's Bay | Author | CSIR |
| 2011 | Lushington Park Wind Farm, East London | Author | CES |
| 2011 | Chaba Wind Farm, Komga | Author | CES |
| 2010 | Thomas River Wind Farm and PV Park VIA, Stutterheim | Author | CES |
| 2010 | Eskom Power Line VIA, Kouga | Author | CES |
| 2010 | Laguna Bay Resort VIA | Author | CES |
| 2010 | Kouga Wind Farm VIA | Author | Arcus GIBB |
| 2010 | Electrawinds Coega Wind Farm VIA | Author | CSIR |
| 2010 | Innowind Coega Wind Farm VIA | Author | CES |
| 2010 | Jeffrey's Bay Wind Farm VIA, Jeffrey's Bay | Author | CSIR |
| 2010 | Cookhouse Wind Farm VIA, Cookhouse | Author | CES |
| 2009 | Waainek Wind Farm VIA, Grahamstown | Author | CES |
| 2009 | Coega Wind Turbine BA (Visual Input) | Author | CSIR |
| 2009 | Sierra Leone Ethanol Plant VIA | Author | CSIR |
| 2009 | NamWater Desalination Plant VIA, Swakopmund, Namibia | Author | CSIR |
| 2009 | Nooitgedagt/Coega Water Supply VIA, Motherwell | Author | SRK |
| 2009 | CDM Brewery VIA, Nampula, Mozambique | Author | CES |
| 2009 | TankaTara Preliminary Visibility Analysis, Addo | Author | CES |

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe my qualifications, my experience, and me, and that I am available to work on this project.



[Signature of staff member and authorized representative of the firm]
Full name of staff member: Henry Holland

Date: 18/05/16
Day/Month/Year

Introduction

NEMA: EIA Regulations (Section 13(1)(2),(NEMA 2014)) requires specialist reports to be peer reviewed when they are undertaken in-house by the same company undertaking the environmental impact assessment. Peer reviews are required to validate the independence of the assessments undertaken as well as to evaluate the approach and methodology applied and the conclusions reached.

Henry Holland was appointed by EOH Coastal & Environmental Services as an independent visual impact assessment (VIA) practitioner to undertake a peer review of the proposed Brandvalley Wind Energy Facility Visual Impact Assessment.

Scope of Review

The review assessed the VIA report in terms of the minimum requirements as set out in the EIA Regulations (Appendix 6, Nema 2014) for specialist assessments and followed the DEA guidelines for the review of specialist input to EIA processes (Keatimilwe and Ashton 2005).

The reviewer was involved early on in the VIA and amendments, comments and suggestions were incorporated into the report from the draft stages.

Report Review

Review History

Initially a number of suggestions were made which would add clarity to the report. These included a suggestion to add a map with features that could help readers locate buildings and visual receptors on the viewshed map. Other suggestions related to the minimum requirements of NEMA 2014. These were incorporated into the report.

Furthermore, assessment of the effect of lighting of the facility on the nightscape of the region was added to the ToR.

In the section "*Operations Phase Impact 1: Impact of wind turbines on sensitive visual receptors*" the author rated the severity of the impact as *moderate*. The reviewer argued for a *severe* rating in this case since the visual intrusion is expected to be high and two of the identified sensitive visual receptors will potentially be moderate- to highly exposed to the wind turbines.

Further suggestions were made to include the number of sensitive visual receptors in choosing preferred alternative layouts and localities for construction camps, access roads and substations.

These changes and suggestions were incorporated into the final report.

Minimum Requirements NEMA 2014

The VIA report under review adequately addresses the minimum requirements for a specialist report of the 2014 NEMA regulations (Appendix 6).

Ethics

The specialist has conducted a number of visual impact assessments and has the required expertise to conduct the visual impact assessment. The report showed no indication of bias by the specialist and the methodology followed by the specialist aims to minimise subjective interpretation of results.

Adequacy of Information

The conclusions drawn in the report are based on relevant and detailed information. The comprehensive fieldwork supports these conclusions and provides a high level of confidence in them. The terms of reference (ToR) are standard terms for a wind energy project and adhere to guidelines for visual impact specialists (Oberholzer 2005) for a Level 4 VIA.

Clarity of Report

The report follows a standard layout and includes most, if not all, aspects suggested in the DEA guidelines (Keatimilwe and Ashton 2005) to improve its clarity.

Alternatives

Alternatives are clearly indicated and discussed in the report. Where possible preferred alternatives are indicated in terms of their potential visual impact on sensitive visual receptors.

Mitigation Measures

Wind turbines are highly visible structures in most landscapes due to their height and size, and the fact that they are normally located on hills and ridges. As such they are the structures that cause most concern to interested and affected parties when a wind energy facility is proposed for an area. The colour and lighting of wind turbines are prescribed by the Civil Aviation Authority. There are therefore very little that can be suggested in terms of mitigation measures for the most significant visual impact that a wind energy facility is likely to cause. There are no specific highly sensitive visual receptors for which removal or change in location of a few turbines will lower the significance of the potential impact. The mitigation measures and recommendations in the VIA report address the issues related to a wind energy facility adequately.

Conclusions

The reviewer was involved in the visual impact assessment from an early stage. Amendments and comments to the draft report were incorporated into the latest version of the report and this reviewer is confident that the VIA report is unbiased and robust in its impact ratings and conclusions.

References

- Keatimilwe, K., and P.J. Ashton. 2005. "Guideline for the Review of Specialist Input in EIA Processes: Edition 1." Guidelines ENV-S-C 2005 053 B. Series of Specialist Involvement Guidelines. Cape Town, South Africa: Provincial Government of the Western Cape, Department of Environmental Affairs & Development Planning.
- NEMA. 2014. "R. 982 National Environmental Management Act (107/1998): Environmental Impact Assessment Regulations, 2014." *Government Gazette*, December 4, 38282 edition.
- Oberholzer, Bernard. 2005. "Guideline for Involving Visual & Aesthetic Specialists in EIA Processes." Guidelines ENV-S-C 2005 053 F. Cape Town: CSIR, Provincial Government of the Western

Cape, Department of Environmental Affairs & Development.
http://www.capegateway.gov.za/Text/2005/10/5_deadp_visual_guideline_june05.pdf.