

PEER REVIEW OF VISUAL IMPACT ASSESSMENT (VIA) REPORT

For the Proposed Albany Wind Energy Facility (WEF), Eastern Cape Province

PREPARED BY:



Nuleaf Planning and Environmental (Pty) Ltd

FOR SUBMISSION TO:



CES Environmental and Social Advisory Services

March 2021

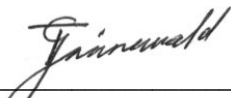
DOCUMENT CONTROL

Report Name:	Peer Review of the Visual Impact Assessment (Via) Report for the Proposed Albany Wind Energy Facility (WEF), Eastern Cape Province
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Report date:	31 March 2021


DECLARATION

We, **Tosca Grünewald** and **Peter Velcich**, as independent consultants compiled this review report and declare that it correctly reflects the findings made at the time of the review. I further declare that I, act as an independent consultant in terms of the following:

- Do not have any financial interest in the undertaking of the activity, other than remuneration for the work performed in terms of the National Environmental Management Act, 1998 (Act107 of 1998);
- Undertake to disclose, to the competent authority, any material information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the National Environmental Management Act, 1998 (Act 107 of 1998);
- Based on information provided to me by the project proponent, and in addition to information obtained during the course of this study, will present the results and conclusion within the associated document to the best of my professional judgement.



 Tosca Grünewald
 Review Author
 EAPASA Reg nr: 2019/1582



 Peter Velcich
 Quality Assessor
 SACLAP: 20136

ASSUMPTIONS AND LIMITATIONS

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To prepare this Report, Nuleaf reviewed only the documents and information provided by the CES or any third parties directed to provide information and documents by CES. Nuleaf has not reviewed any other documents in relation to this Report, except where otherwise indicated.

The findings, recommendations and conclusions given in this report are based on the author's best scientific and professional knowledge, as well as available information. This report is based on survey and assessment techniques which are limited by time and budgetary constraints relevant to the type and level of investigation undertaken. Nuleaf and its staff reserve the right to modify aspects of the report including the recommendations if and when new information may become available from on-going research or further work in this field, or pertaining to this investigation.

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1 INTRODUCTION

Nuleaf Planning and Environmental (Pty) Ltd, hereafter referred to as Nuleaf, was appointed in February 2021 by CES Environmental and Social Advisory Services to undertake an independent peer review for a Visual Impact Assessment (VIA) for the proposed Albany WEF dated March 2021. This was done in order to fulfil the requirements of regulation 13 (2) of NEMA EIA Regulations of 2014, as amended.

This peer review is an independent assessment of the methodology and approach utilised by CES with regard to the VIA. The review assesses whether the VIA has adopted best practice, comprehensively applied methodologies that reflect best practice and drawn conclusions that are reasonably supported by the adopted methodology. These aspects will be reviewed in terms of the following principles:

- A clear and logical method;
- A holistic and comprehensive approach;
- Transparent and defensible criteria and ratings, and
- An objective and consistent process that may be repeated by others, and which would produce the same results.

This Review must be read in conjunction with the Visual Impact Assessment for the Proposed Albany Wind Energy Facility, Eastern Cape, South Africa (CES, February 2021). The following information was provided by CES to the Reviewer:

- The VIA Report dated March 2021
- The Draft VIA Report dated March 2020
- All comments and reviews received from the I&AP's

2 DETAILS AND EXPERTISE OF REVIEWERS

Company	Nuleaf Planning and Environmental (Pty) Ltd Nuleaf is a multidisciplinary company specialising in environmental, landscape and tourism service provision. Our environmental scope includes Environmental Planning, Management and Impact Assessments, but due to the integrated nature thereof, a combination of these is often required. More specialised services include Integrated Management Planning, Visual Impact Assessments and Bioregional Planning. Over the past decade, the professional team has successfully undertaken numerous Visual Impact Assessments (VIA) for a wide variety of developments, ranging from mining, renewable energy facilities, power lines to roads and lodges.
Quality Assessor	Peter Velcich
Expertise	Peter is a registered Professional Landscape Architect with a Master's Degree in Landscape Architecture and 30 years' experience. Peter has specialized in Environmental Planning and Management, with specific expertise in Land Use Planning, Master Planning, Tourism Development Planning and Visual Impact Assessments in South Africa and internationally. Peter also has 20 years' experience in Environmental Impact Assessment and Landscape Planning.
Registered professional bodies	Professional Landscape Architect registered with SACLAP 20136
Author	Tosca Grünewald
Expertise	Tosca has her Masters in Landscape Architecture, and 8 years of experience. Tosca has specialized in Landscape Architecture, as well as, Environmental Planning and Management, with specific expertise in Framework and Master planning, Environmental Impact Assessments and Environmental Management Planning.
Registered professional bodies	Environmental Assessment Practitioner, EAPASA Registered 2019/1582 Landscape Architect, Candidate registered with SACLAP 208

3 PROJECT DESCRIPTION

Albany Wind Power (Pty) Ltd proposes to develop a commercial Wind Energy Facility (WEF) just outside Makhanda (formerly Grahamstown) in the Eastern Cape. The proposed facility is located within the Makana Local Municipality.

The proposed Albany WEF will have total maximum output capacity of 297 MW, and will include the following:

- Up to forty-three (43) wind turbines (reduced from 66 turbines originally planned) with a rotor diameter of up to 170 m, a hub height of up to 130 m and blade length of up to 85 m - each with an output of between 4 and 8 megawatts (MW);
- Foundations (up to 550 m²) for each wind turbine;
- Cabling between the turbines, to be laid underground where practical;
- A transformer station for each wind turbine;
- Access roads to the site and between project components;
- An IPP substation;
- Two collector substations;
- Overhead powerline to connect the facility to the electrical grid; and
- Laydown areas, crane hardstand pads, administrative buildings and offices.

4 REVIEW FINDINGS

Sufficient opportunity and time were provided by CES to the reviewer to undertake a thorough and completely independent review of the VIA Report for the Proposed Albany WEF.

Following the reviewer's analysis of the received VIA Report and based on the reviewer's experience, the below findings about the report are made.

4.1 SECTION 1: INTRODUCTION

The following is of relevance:

- A reduction of 23 turbines was noted to have taken place since the Draft VIA Report. This report however does not offer a reason as to why these specific 23 turbines were chosen to be removed.
- The turbine heights used to base the viewshed for both the turbine hub heights and turbine tip heights calculations are clearly stated.

4.2 SECTION 2: TRIGGERS FOR SPECIALIST VISUAL INPUT

It was noted that a specialist visual impact assessment was needed and that a Very High visual impact is expected as a result of a category 5 development.

4.3 SECTION 3: COMMENTS ON THE DRAFT VIA

The reviewer takes cognisance of the various I&AP comments received on the Draft VIA Report issued in March 2020. CES made all the comments received available to the reviewer. The reviewer is of the opinion that the VIA as it currently stands has taken into account and addressed the majority of the comments received.

4.4 SECTION 4: APPROACH AND METHODOLOGY

The reviewer is of the opinion that the VIA report has adopted a methodology that is sound and in line with best practice. The following is of relevance:

- The methodology section of the report offers insight into and clearly lays out the methodology models utilised in the report. The methodology utilised appears to be impartial and repeatable.
- The methodology, as laid out in this section of the report, has been consistently applied throughout the report.
- The parameters set out in the matrix tables used to base the assessment criteria on are evident and appear to be constantly applied for all Impact Assessment ratings.

4.5 SECTION 5: PROJECT INFORMATION

The relevant project information provided in the report is concise and seems accurate to the facility described and illustrated in the diagrams.

4.6 SECTION 6: BASELINE DESCRIPTION

In general, this chapter is well laid out and easy to follow. The following is of relevance:

- Protected areas, as per the SA Protected Areas Database (2020), occurring within the study area have been included in the report.
- Private Nature Reserves not proclaimed and listed on the SA Protected Areas Database (2020) have been identified.
- A section detailing the implication of the Cookhouse REDZ has been included in this section of the report.
- 12 Turbines of the western cluster of the proposed WEF are located within the Very High Landscape Sensitivity Class of the Cookhouse REDZ. The report suggests that this area be excluded from the REDZ. The reviewers question the practicality and feasibility of this suggestion.
- It is recommended by the reviewers that the relocation or removal of these 12 Turbines outside of the Very High Landscape Sensitivity Class of the Cookhouse REDZ is suggested instead, as a possible avoidance mitigation measure, as part of the recommended management actions.

4.7 SECTION 7: IDENTIFICATION OF POTENTIAL SENSITIVE RECEPTORS

Clear criteria, based on the criteria established in the REDZ SA Landscape Sensitivity Analysis Report, have been established with regards to the rationale behind the identification of potential sensitive receptors. Additionally, the location of these potential sensitive receptors in relation to the proposed Albany WEF is clearly indicated in Figure 7.1.

4.8 SECTION 8: DESCRIPTION OF ALTERNATIVES

It is the reviewers understanding, from the information provided, that no alternatives were assessed as part of the Visual Impact Assessment. However, the Final VIA Report does assess a reduced layout of 43 turbines compared to the initial 66 turbines assessed in the Draft VIA Report.

4.9 SECTION 9: VIEWSHED ANALYSIS OF SELECTED SENSITIVE RECEPTORS

The viewsheds generated for the study area appear to be accurate. The following is of relevance with regards to the viewsheds generated and the subsequent analysis undertaken:

- As per the industry best practice, all analytical decision making and viewshed analysis undertaken were, in the opinion of the Reviewers, based on the worst-case scenario, i.e., highest point of the proposed infrastructure.
- The heights (turbine hub height or blade tip heights) used to generate the two viewsheds are clearly communicated for each viewshed within the figure descriptions. Both viewshed are also utilised as part of the subsequent viewshed analysis.
- Detailed viewshed analysis for the identified selected sensitive receptor locations (as identified in Section 8) was undertaken. The following is of relevance with regards to Section 9.2 of the report dealing with the viewshed analysis of selected receptor locations:
 - The detailed viewshed analysis maps generated for each Receptor consistently include and label the location of relevant points of interests (i.e., lodges, viewpoints, picnic areas, roads, etc.) located within and around these areas.
 - The methodology, as outlined in Section 4 of the Report, is consistently applied in the analysis of the individual identified selected sensitive receptor locations.
 - The extent of the detailed viewshed generated for the Great Fish River Nature Reserve has been extended to include the entire Reserve, beyond the 30km radius.

4.10 SECTION 10: SIMULATED VIEWS FROM SELECTED OBSERVER POINTS

3D viewpoint simulations have been undertaken from selected observer points for selected sensitive receptors. The following is relevant:

- Daytime view simulations
 - The 3D simulation technique applied to generate the day view simulations offers the absolute worst-case scenario. No real-world context such as vegetation and other infrastructure already in the area like powerlines, roads, etc. are represented in the simulations. In the reviewer's opinion, simulations generated using photographic techniques would have been better applied in the report's context. However, since the 3D simulation technique does communicate the worst-case scenario the technique applied is not deemed a flaw in the report.

Night lighting view simulations

- Night lighting simulations have been applied and analysed.
- The 3D simulations technique for the application in the night lighting view simulations is successfully applied. Simulations include day, dusk and night simulations of turbine lighting.

4.11 SECTION 11: OTHER OBSERVATIONS

This section of the report addresses the analysis results of observations made in addition to the viewshed and 3D simulations described in the previous sections.

4.12 SECTION 12: ASSESSMENT OF VISUAL IMPACTS

The application of the methodology and assessment criteria as outlined in Section 4 and Appendix E of the report are consistent in its application in this section of the report. The following is relevant for this Section of the report:

- The overall visual visibility, sensitivity of the surrounding landscape and intrusion of the proposed Albany WEF are assessed for the entire study area.
- The parameters upon which the various visual impacts have been assessed are clear and outlined in Section 4 of the report. The application of these parameters has also been consistently applied.

- An overall visual impact rating has also been established for each identified sensitive receptor in Table 12.1 as per the methodology described in Section 4 of the report. An easy-to-read summary of the impact ratings for each identified sensitive receptor can be found in Table 12.2.
- The expected impacts for the construction, operational and decommissioning phases of the project, with and without mitigations, have been addressed and assessed, according to a clear methodology and parameters as outlined in Appendix E of the report.
- Impacts expected during the operational phase assessed include the impact on visually sensitive receptors, impact of night lighting intrusion, shadow flicker and that of the 132kV powerline and other ancillary infrastructure.
- The cumulative impact of the proposed Albany WEF together with other operational, approved and proposed facilities in the area has also been assessed.

4.13 SECTION 13: CONCLUSIONS AND RECOMMENDED MANAGEMENT ACTIONS

As stated by Appendix 6(1) of the NEMA EIA Regulations of 2014, as amended, a specialist report prepared in terms of these regulations must contain a reasoned opinion as to whether the proposed activity or portions thereof should be authorised. A reasoned opinion has been made in this section of the report.

5 REVIEW CONCLUSIONS

Overall, the Visual Impact Assessment arrives at an objective and defensible result. The reviewers are of the opinion that the VIA report has generally adopted a methodology that was sound and in line with best practice. Therefore, it is submitted that the Final Visual Impact Assessment (VIA) by CES for the Albany WEF represents an objective and consistent process that may be repeated by others, and which would produce the same results.

The viewsheds generated appear accurate and most mitigation measures recommended are sensible, practical and appropriate to the nature and scale of the proposed development. Additionally, direct, indirect and cumulative impacts were considered and addressed.