



**RIETKLOOF WIND FARM (PTY) LTD**

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# **Proposed Construction of the Rietkloof Wind Energy Facility near Matjiesfontein, Western Cape Province**

## **Visual Specialist Comment – Part 2 Amendment**

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# RIETKLOOF WIND FARM (PTY) LTD

## PROPOSED CONSTRUCTION OF THE RIETKLOOF WIND ENERGY FACILITY NEAR MATJIESFONTEIN, WESTERN CAPE PROVINCE

### VISUAL SPECIALIST COMMENT – PART 2 AMENDMENT

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# GLOSSARY OF TERMS

## ABBREVIATIONS

BA	Basic Assessment
DBAR	Draft Basic Assessment Report
DEM	Digital Elevation Model
DFFE`	Department of Forestry, Fisheries and the Environment
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EMP	Environmental Management Plan
FBAR	Final Basic Assessment Report
GIS	Geographic Information System
MW	Megawatt
NEMA	National Environmental Management Act
OHP	Overhead power line
REIPPPP	Renewable Energy Independent Power Producer Procurement Programme
VIA	Visual Impact Assessment
VR	Visual Receptor
WEF	Wind Energy Facility

## **DEFINITIONS**

**Sense of place:** The unique quality or character of a place, whether natural, rural or urban. It relates to uniqueness, distinctiveness or strong identity.

**Scenic route:** A linear movement route, usually in the form of a scenic drive, but which could also be a railway, hiking trail, horse-riding trail or 4x4 trail.

**Sensitive visual receptors:** An individual, group or community that is subject to the visual influence of the proposed development and is adversely impacted by it. They will typically include locations of human habitation and tourism activities.

**Viewpoint:** A point in the landscape from where a particular project or feature can be viewed.

**Viewshed / Visual Envelope:** The geographical area which is visible from a particular location.

**Visual character:** The pattern of physical elements, landforms and land use characteristics that occur consistently in the landscape to form a distinctive visual quality or character.

**Visual contrast:** The degree to which the development would be congruent with the surrounding environment. It is based on whether or not the development would conform with the land use, settlement density, forms and patterns of elements that define the structure of the surrounding landscape.

**Visual exposure:** The relative visibility of a project or feature in the landscape.

**Visual impact:** The effect of an aspect of the proposed development on a specified component of the visual, aesthetic or scenic environment within a defined time and space.

**Visual receptors:** An individual, group or community that is subject to the visual influence of the proposed development but is not necessarily adversely impacted by it. They will typically include commercial activities, residents and motorists travelling along routes that are not regarded as scenic.

**Visual sensitivity:** The inherent sensitivity of an area to potential visual impacts associated with a proposed development. It is based on the physical characteristics of the area (visual character), spatial distribution of potential receptors, and the likely value judgements of these receptors towards the new development, which are usually based on the perceived aesthetic appeal of the area.

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## PROPOSED CONSTRUCTION OF THE RIETKLOOF WIND ENERGY FACILITY NEAR MATJIESFONTEIN, WESTERN CAPE PROVINCE

### VISUAL SPECIALIST COMMENT – PART 2 AMENDMENT

#### 1 INTRODUCTION

Rietkloof Wind Farm (Pty) Ltd, (hereafter referred to as “Rietkloof”) was issued with an Environmental Authorisation (EA) for the proposed Rietkloof Wind Energy Facility (WEF) and its associated infrastructure, near Matjiesfontein in the Western Cape Province on 23 November 2016 (DEA Reference 14/12/16/3/3/2/899). However this EA only authorised nine (9) of the sixty (60) turbines originally proposed by Rietkloof, each with a hub height of 120m and a rotor diameter of 140m

Subsequent to this, and on the basis of changes to the relevant Critical Biodiversity (CBA) datasets, the promulgation of the Renewable Energy Development Zones<sup>1</sup>, and the proposed implementation of a site Conservation Management Plan for the Rietkloof WEF project area, application was submitted for EA for the remaining fifty-one turbines not previously authorised. This application included an increase in the proposed hub heights and rotor diameters for these turbines to 125m and 160m respectively. This application was authorised on 10 April 2019 under DFFE Ref No. 14/12/16/3/3/1/1977.

Electrical infrastructure to serve the Rietkloof WEF was authorised on 23 November 2016, under DFFE Ref No. 14/12/16/3/3/1/1590.

Rietkloof is now proposing to submit a Part 2 Amendment application in respect of further changes to the approved turbine specifications, the project layout and the Environmental Management Plans (EMPrs) for the proposed WEF and associated grid connection infrastructure. SiVEST has been requested to provide visual specialist comment in respect of the proposed amendments and also to provide visual specialist inputs for the updated EMPrs.

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<sup>1</sup> formally gazetted (Gazette Number 41445) on 16 February 2018 by the Minister of Environmental Affairs (GN 114)

## 2 METHODOLOGY

### 2.1 Part 2 Amendment (Layout Changes) and Update of Associated EMPs

An assessment of the proposed layout changes for the proposed Rietkloof WEF from a visual perspective will involve the tasks as outlined below.

- A review of the original VIAs undertaken for the project as well as Visual Specialist inputs in respect of any subsequent amendments;
- An assessment of the proposed new turbine specifications and layout changes in relation to the findings of the original VIAs, including:
  - A re-assessment of potential turbine visibility (viewshed) from previously identified receptor locations;
  - An assessment of potential visual sensitivity in relation to the outputs from the National Web Based Environmental Screening Tool, specifically outputs from the Landscape and Flicker Themes.
- Compilation of a Visual Specialist Assessment Report outlining the findings of the assessment and:
  - identifying whether the proposed amendments will result in any additional visual impacts or exacerbate the impacts previously identified in the VIA for this development; and
  - providing additional recommendations or mitigation measures (if necessary) for inclusion in the respective EMPs for these projects.
- Compilation of a Site Sensitivity Verification Report in accordance with the Assessment Protocols for specialist studies<sup>2</sup>.
- Provision of updated inputs where necessary for the respective EMPs based on the findings of the assessment.

### 2.2 Update of EMP for 132kV Power Lines

Updates to the EMP for the associated 132kV power line will involve the tasks as outlined below.

- A review of the original VIA (where available) undertaken for the project as well as Visual Specialist inputs in respect of any subsequent amendments to identify visual specialist recommendations and mitigation measures relevant to the proposed power line development.
- Provision of updated inputs where necessary for the respective EMPs.

## 3 ASSUMPTIONS AND LIMITATIONS

Given the fact that the proposed WEF and associated power line is within the project area originally assessed for the Rietkloof WEF VIA, it has been assumed that the baseline conditions

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<sup>2</sup> Formally gazetted on 20 March 2020 (GN No. 320)



and receptor locations in the area remain largely unchanged. This assumption was confirmed by way of a desktop assessment and as such, additional fieldwork was not considered necessary.

## **4 SUMMARY OF PREVIOUS VIA FINDINGS**

EOH Coastal and Environmental Services (EOH CES) undertook a VIA for the proposed 147 megawatt (MW) Rietkloof Wind Energy Facility (WEF) in March 2016. A second VIA for the Rietkloof WEF was undertaken by EOH CES in November 2018 in support of a Basic Assessment application being submitted in respect of the remaining fifty-one turbines.

In summary, both VIAs described the landscape in the vicinity of the Rietkloof WEF project area as typically “Karoo”, largely undeveloped with sheep farming being the dominant activity. The prevailing sense of place is largely associated with remoteness, low levels of development and peace and tranquility.

The proposed WEF covers a large area of land and given the height of the proposed turbines, the development will be visible from a number of local farmhouses, a few guest houses and the R354 main road. Generally however, the development was considered to be positioned in such a way that the turbine structures will be partially screened from view by natural vegetation or by topographic features.

The need for a separate full VIA for the proposed grid connection infrastructure to serve the Rietkloof WEF was not identified as part of the BA process undertaken in for this development. However, potential visual impacts were discussed in the Basic Assessment Report (BAR) for the proposed power line development dated 8 August 2016. It was stated in this report that although the proposed power line will affect the sense of place, much of the route alignment either follows the alignment of existing high voltage power lines, or is within the WEF development footprint. As a result, visual impacts resulting from the proposed power line would be very low.

### **4.1 Sensitive Receptors**

The previous visual assessments identified twenty-one (21) farmsteads within a 20 km radius of the Rietkloof WEF turbine layout. The visual impact of the WEF on these homesteads is dependent on the number of turbines visible and their proximity to the turbines (i.e. their visual exposure to the development). It was pointed out that not all of these homesteads are necessarily sensitive to the proposed WEF, as this depends on the occupants’ perception of wind turbines. As such, for the purposes of the VIA, only tourist facilities and the homesteads of interested and affected parties (I&APs) that have objected to the WEF development were considered to be particularly sensitive. In terms of tourist facilities, the Gatsrivier guest farm, Saaiplaas Guest Farm, Blue Berry Hill guest farm and Keurkloof Guest Farm were identified as

sensitive. In addition, homesteads on the farms Zeekoegat and Keurkloof were identified as sensitive receptors due to objections raised by their respective owners.

The R354 main road which passes within 5km of the proposed turbines was also identified as a potential receptor. However, although this road is recognised as a scenic route, it was noted in the VIA that the WEF project was fully supported by the heritage authority and that the development needs to be seen within the context of the area being a designated Renewable Energy Development Zone (REDZ).

## 4.2 Identified Impacts

In the previous VIA, the assessment and mitigation of impacts involved the following:

- Identification of visual impact criteria (key theoretical concepts);
- Visibility analysis; and
- Assessment of the impacts of the proposed wind farm taking into consideration factors such as sensitive viewers and viewpoints, visual exposure and visual intrusion.

It was determined that the level of visibility, sensitivity and intrusion of the project would all be high. The visual sensitivity the receptors was mostly rated as high, while exposure varied depending on the distance of each receptor from the nearest wind turbine.

## 4.3 Impact Rating

### 4.3.1 Construction Phase

Two potential causes of visual impact during construction were identified as outlined below.

- Various activities during the construction phase may have impacts on sensitive visual receptors, and the overall significance of these impacts was rated as **Moderate Negative**.
- Construction camps associated with the proposed facility will have a visual impact, affecting the landscape and rural sense of the place of the area. Construction camps will generally be seen as impacting negatively on the aesthetics of a landscape. The overall significance of these impacts was however rated as **Low Negative**.

### 4.3.2 Operations Phase

Five potential causes of visual impact during operation were identified as outlined below.

- During operation, the WEF is expected to impact visually on sensitive receptors in the area. The overall significance of these impacts was rated as **High Negative**, with few mitigation measures available to reduce the impacts

- The roads associated with the proposed facility will result in visual impacts affecting the landscape and rural sense of the place of the area. The overall significance of these impacts was however rated as **Moderate Negative**.
- On-site power stations associated with the proposed facility will also result visual impacts affecting the landscape and rural sense of the place of the area. The overall significance of these impacts was however rated as **Low Negative**.
- Wind farms are required by law to be lit at night as they represent hazards to aircraft due to the height of the turbines, thus resulting in light pollution in an otherwise pristine nightscape. The overall significance of these impacts was however rated as **Moderate Negative**.
- Shadow flicker, resulting from the shade cast by a wind turbine and its rotating blades, may impact on any residences in close proximity to the wind turbines. As there are few buildings within 500m of a wind turbine, there no impacts are anticipated as a result of shadow flicker.

#### 4.3.3 Decommissioning Phase

Impacts during the decommissioning phase will be very similar to those identified in the construction phase and the overall significance of these impacts was rated as **Moderate Negative**.

#### 4.3.4 Cumulative Impacts

The VIA recognised that there are a number of other existing and proposed renewable energy and electrical infrastructure developments in close proximity to the Rietkloof WEF. During construction and operation, these facilities would inevitably change the visual character of the area and alter the inherent sense of place, thus giving rise to significant cumulative impacts. The overall significance of these impacts was rated as **High Negative**, with few mitigation measures available to reduce the impacts.

It was further noted however that the study area is located within the Komsberg REDZ (REDZ 2), and thus the relevant authorities support the concentration of renewable energy developments in this area.

## 4.4 Impact Statement

The VIA concluded that potential losses of scenic resources resulting from the proposed development are not sufficiently significant to present a fatal flaw to the proposed project. It was therefore recommended that the project proceed, on condition that the mitigation measures identified in the VIA are met throughout the various phases of the development.

## 5 SPECIALIST COMMENT

### 5.1 Proposed WEF

The layout of the proposed WEF, as depicted in **Figure 1** was fully assessed in the VIA undertaken in August 2018. It has been established, via desktop assessment using Google Earth imagery, that although the landscape to the north and north-east of Rietkloof WEF is undergoing significant change as a result of the development of the Roggeveld, Karusa and Soetwater WEFs, there has been little change since 2018 in the baseline characteristics and the number of sensitive receptors across the remainder of the study area.

#### 5.1.1 Amendments to Turbine Specifications

The proposed new turbine specifications would allow for a hub height of 125m and a rotor diameter of 180m, resulting in a maximum height at the blade tip of 215m, between 10m and 25m higher than the height currently authorised. While an increase in the height of the turbines would increase the visibility of the WEF, a GIS-based visibility analysis has shown that, in this instance the increase in visibility would be marginal. Visual impacts resulting from the larger turbines would be greatest within a 1km to 2km radius, from where the increased height of the structure would be most noticeable. However, no potentially sensitive receptors were identified within 2km of a wind turbine placement, and the larger turbines as proposed are not expected to increase the impacts experienced by any of the identified receptors.

In addition, the change in the turbine specifications being proposed for the Rietkloof WEF has allowed for a reduction in the number of turbines required for the facility. Hence, a total of thirteen (13) turbines have now been removed from the layout depicted in **Figure 1** and Rietkloof has advised that the number of turbines is likely to be further reduced to between 25 and 32. Fewer turbines will result in a slight reduction in the area from which the turbines will be visible (viewshed) there will be less visual clutter in the landscape resulting in a slight reduction in the cumulative impacts experienced.

In light of this, and the limited human habitation and relatively remote location of the proposed Rietkloof WEF, the proposed changes in the turbine specifications are not expected to result in any increased visual impacts on the identified receptors, or affect any additional receptors in the surrounding area.

#### 5.1.2 Updates to WEF Layout

As part of this amendment application, Specialists are being asked to assess an updated layout for the proposed Brandvalley WEF as depicted in the Google Earth Layout (*2021\_11\_11 EMP R Layouts Rietkloof WF rev B.kmz*) received on 13<sup>th</sup> November 2021. Updated aspects of the layout include:

- A reduction in the number of turbines, resulting in the removal of between 13 and 35 turbines from the layout. The remaining turbines remain in place (subject to micro-siting);

- An indicative hardstand footprint has been included in the updated layout. The exact orientation, position and dimensions of the hardstands will be subject to minor change pending the final selection of the TSA;
- •Roads with a width of between 9m and 12m widths as stipulated in the respective EIAs (excluding additional width for cut / fill earthworks);
- Substation & O&M facility as per the size and position stipulated in the original EIA;
- MV Collectors will be in the form of cables buried along the roads;
- Laydown Area and Batch Plant have been shifted in line with recommendations made by the contractors;
- Construction Camp has been shifted from the agricultural lands to an area that is currently being used for the Roggeveld WEF Batch Plant.

Considering the fact that the proposed updates in the WEF layout as outlined above do not deviate significantly from the layout assessed in the original EIA and subsequent amendments, it is not anticipated that the final layout will result in any changes in the significance of the impacts identified in the VIA, nor will it result in any additional visual impacts.

### 5.1.3 Cumulative Impacts

Although the previous VIA considered a number of other existing and proposed renewable energy and electrical infrastructure developments in close proximity to the Rietkloof WEF, it should be noted that there have been some changes in the status of some of these projects in the interim. Construction is either well under way or has been completed in respect of three of the identified projects, namely Roggeveld, Karuso and Soetwater WEFs. Hence the landscape has already undergone noticeable change.

In addition, Rietkloof and Brandvalley WEFs have both been awarded preferred bidder status and one new project in the broader area has been granted EA and awarded preferred bidder status. This project, namely Oya Energy Facility is a combined Solar PV and Fuel-based Generator Facility (FBGF), located some 25kms north-west of the proposed Rietkloof WEF. Although the different technologies are expected to have different impacts, all renewable energy developments and associated grid connection infrastructure are relevant as they contribute to the alteration of the visual character of the broader area. In this instance however, given the distance from the Rietkloof WEF and the hilly topography in the broader area which limits the visibility of the facility, it is not anticipated that this development will result in any significant increase in the cumulative impacts affecting the landscape or the visual receptors **within** the assessment area for the Rietkloof project.

Having considered the new information relating to renewable energy developments in the broader area, the overall significance of cumulative impacts remains as **High Negative**, with few mitigation measures available to reduce the impacts.

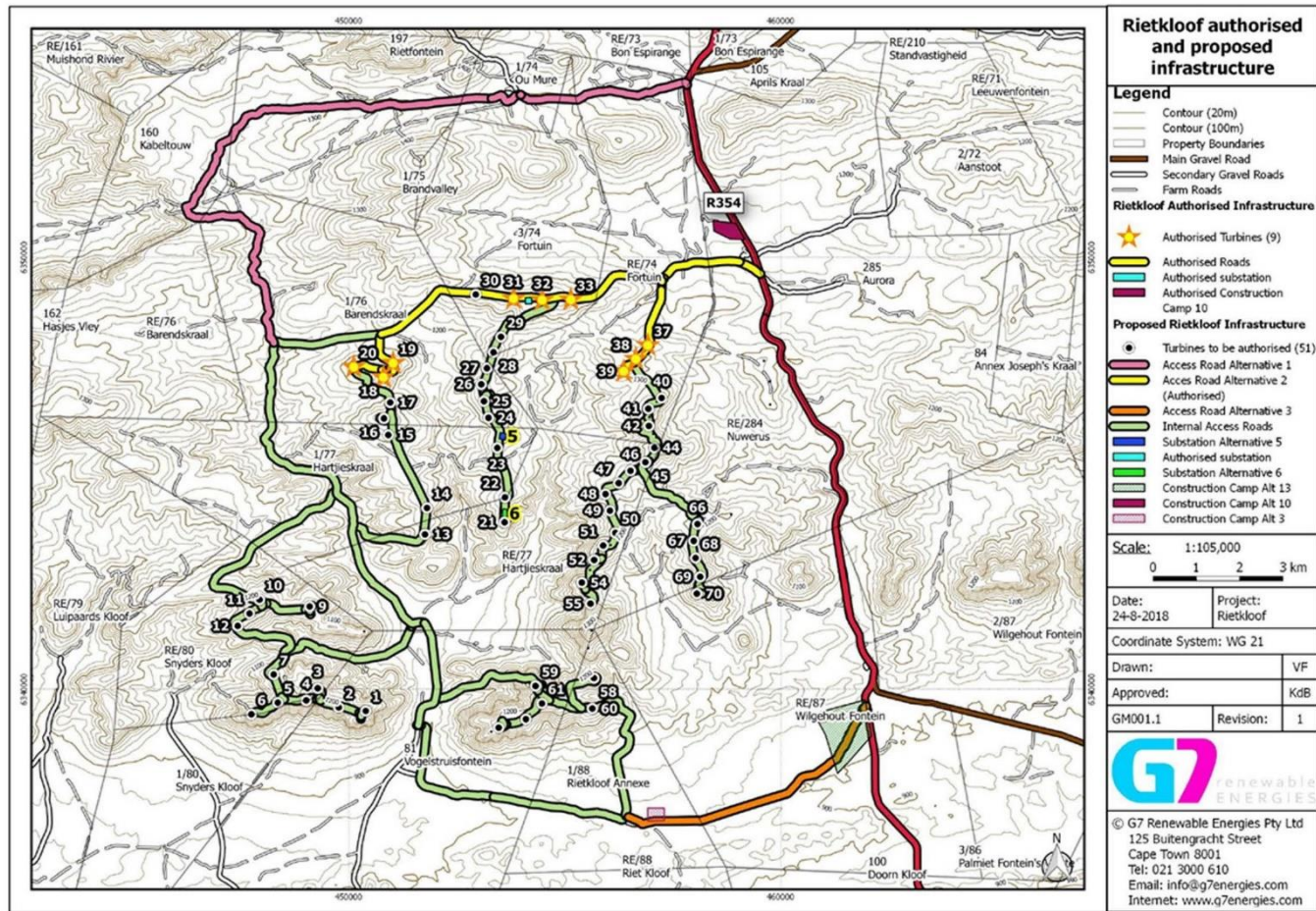


Figure 1: Authorised Rietkloof WEF layout

## 5.2 Sensitivities identified by the National Web-Based Environmental Screening Tool

### 5.2.1 Proposed WEF

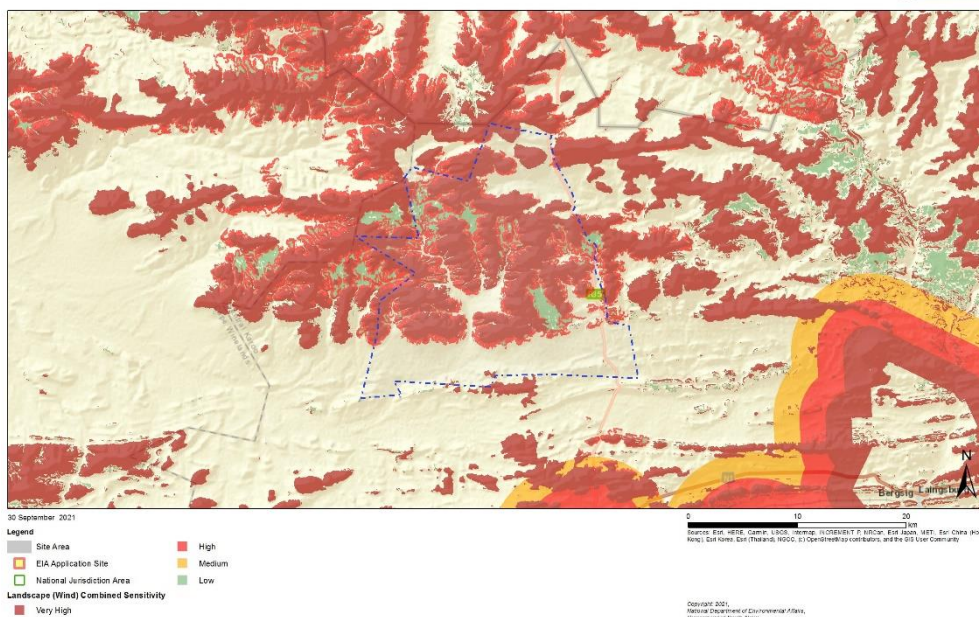
In support of this visual specialist comment, consideration was given to the Landscape and Flicker Themes of the National Environmental Screening Tool. Under the Landscape Theme, as shown in **Figure 2** below, the tool identifies areas of Very High and High sensitivity in respect of WEF development within the Rietkloof WEF project area. According to the Screening Tool, the high sensitivity rating applied to the project area is associated with the presence of natural features such as mountain tops, high ridges and steep slopes. Based on these criteria, a significant portion of the site would be ruled out for WEF development.

The Screening Tool is however a very high level, desktop study and as such the results of the study must be viewed against factors affecting visual impact, such as:

- the presence of visual receptors;
- the distance of those receptors from the proposed development; and
- the likely visibility of the development from the receptor locations.

As most of the turbines are located on these ridges, they will theoretically be visible from a number of visual receptors. In general however, the development is positioned in such a way that, in most cases turbine structures will be partially screened from view by natural vegetation and topographic features. In addition, viewing distance must be considered when assessing visual impacts, as beyond a certain distance, even large developments tend to be much less visible, and are difficult to differentiate from the surrounding landscape. The visibility of the proposed development from the identified receptors and the expected level of exposure was examined in detail in the original VIA for the Rietvalley WEF. Most of the receptors are more than 5km from the nearest wind turbine and as such, visual impacts will be somewhat reduced.

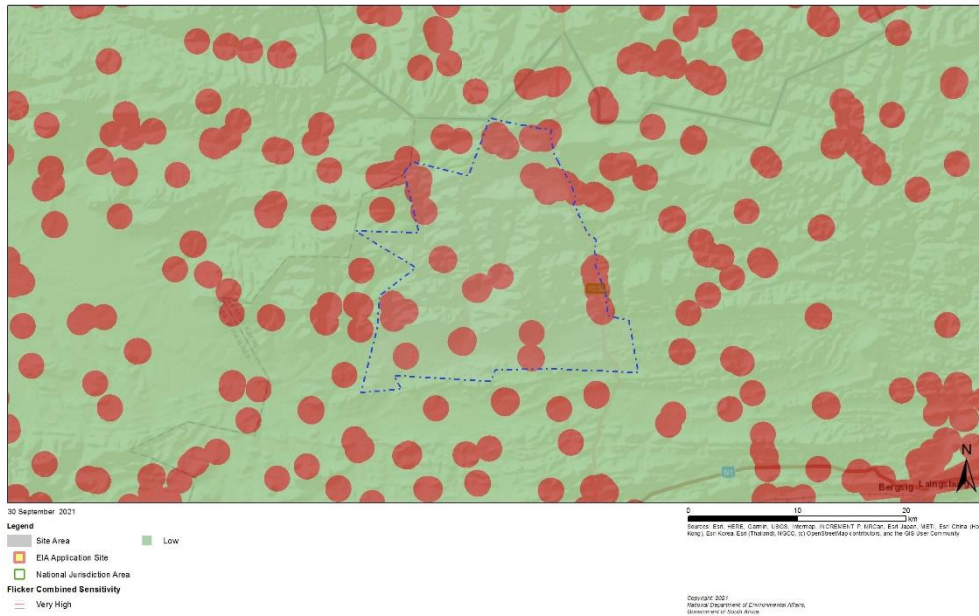
In addition, the proposed development is located within a designated REDZ, and thus the relevant authorities support the concentration of renewable energy developments and associated transformation in this area.



**Figure 2: Relative Landscape Sensitivity (September 2021)**

The flicker theme demarcates areas (1 km buffers) of sensitivity around identified receptors in the area (**Figure 3**). Under this theme, several “receptors” have been identified within the Rietkloof WEF project area, and the buffers demarcated around these receptors have been assigned a “very high” sensitivity rating. Based on the findings of the original VIA as well a high level Google Earth scan, it has been determined that many of the receptors identified by the Screening Tool are not in fact receptors. In addition, potential impacts resulting from shadow flicker were assessed in the previous VIA for the Rietkloof WEF and it was concluded that although there are a few buildings within 500m of a wind turbine, none of these are occupied and the proposed layout is not expected to result in any flicker impacts affecting the identified receptors.





**Figure 3: Flicker Sensitivity (September 2021)**

### 5.2.2 Proposed Grid Connection Infrastructure

The National Environmental Screening Tool does not identify any landscape sensitivities in respect of the proposed grid connection.

## 6 132KV POWER LINE EMPR

An EMPr for the proposed 132kV power line to serve Rietkloof WEF was compiled by EOH CES in July 2016 and was included in the Final Basic Assessment Report (FBAR) submitted for the proposed development. This EMPr does not however include any specific mitigation measures in respect of visual impacts resulting from the proposed power line. In light of this, the potential visual impacts that may result from the power line development have been re-assessed with a view to formulating mitigation measures for inclusion in the EMPr. Consideration has been given in this assessment to the proposed power line route alignment and substation layout as presented in the Google Earth file (WIN-0252-IN-DWG-002-A-EMPr Layouts 132kV OHL Rietkloof to BonEspirange.kmz) received on 29<sup>th</sup> October 2021.

### 6.1 Identification of Potential Impacts associated with power lines

Potential visual issues / impacts resulting from the proposed development of the power line and associated electrical infrastructure to serve the proposed Rietkloof WEF are outlined below.

### 6.1.1 Construction Phase

- Potential visual intrusion resulting from large construction vehicles and equipment;
- Potential visual impacts of increased dust emissions from construction activities and related traffic;
- Potential visual scarring of the landscape as a result of site clearance and earthworks; and
- Potential visual pollution resulting from littering on the construction site.

### 6.1.2 Operational Phase

- Potential alteration of the visual character of the area;
- Potential visual intrusion resulting from infrastructure dominating the skyline in a largely natural / rural area;
- Potential visual effect on surrounding farmsteads; and
- Potential alteration of the night time visual environment as a result of operational and security lighting at the associated substations .

### 6.1.3 Decommissioning Phase

- Potential visual intrusion resulting from vehicles and equipment involved in the decommissioning process;
- Potential visual impacts of increased dust emissions from decommissioning activities and related traffic; and
- Potential visual intrusion of any remaining electrical infrastructure on the site.

## 6.2 INPUT TO THE ENVIRONMENTAL MANAGEMENT PROGRAMME

Impact	Mitigation / Management Objectives	Mitigation / Management Actions	Monitoring		
			Methodology	Frequency	Responsibility
<b>A. CONSTRUCTION PHASE</b>					
<b>A.1. VISUAL IMPACTS</b>					
Potential impact on visual resources as a result of the proposed power line and electrical infrastructure.	Avoid or minimize construction impacts on existing visual resources and potentially sensitive receptor locations in the surrounding area.	<ul style="list-style-type: none"> <li>○ Carefully plan to minimise the construction period and avoid construction delays.</li> <li>○ Inform any receptors within 500m of construction works of the construction programme and schedules.</li> <li>○ Position storage/stockpile areas in unobtrusive positions in the landscape, where possible.</li> <li>○ Minimise vegetation clearing and rehabilitate cleared areas as soon as possible.</li> <li>○ Vegetation clearing should take place in a phased manner.</li> <li>○ Make use of existing gravel access roads where possible.</li> <li>○ Limit the number of vehicles and trucks travelling to and from the construction, where possible.</li> <li>○ Ensure that dust suppression techniques are implemented: <ul style="list-style-type: none"> <li>○ on all access roads;</li> </ul> </li> </ul>	Ensure that visual management measures are monitored by an ECO. This will include monitoring activities associated with visual impacts such as the siting and management of soil stockpiles, screening and dust suppression. Regular reporting to an environmental management team must also take place during the construction phase.	Ongoing during construction	<ul style="list-style-type: none"> <li>▪ Main Contractor (MC), Environmental Officer (EO) and ECO</li> </ul>

Impact	Mitigation / Management Objectives	Mitigation / Management Actions	Monitoring		
			Methodology	Frequency	Responsibility
		<ul style="list-style-type: none"> <li>○ in all areas where vegetation clearing has taken place;</li> <li>○ on all soil stockpiles.</li> <li>○ Maintain a neat construction site by removing litter, rubble and waste materials regularly.</li> </ul>			
<b>B. OPERATION PHASE</b>					
<b>B.1. VISUAL IMPACTS</b>					
Potential impact on visual resources as a result of the proposed grid connection infrastructure.	Avoid or minimize operational impacts on existing visual resources and potentially sensitive receptor locations in the surrounding area.	<ul style="list-style-type: none"> <li>○ Where possible, limit the amount of security and operational lighting present at substations.</li> <li>○ Where possible, avoid placing lights on pylon structures.</li> <li>○ Light fittings for security at night should reflect the light toward the ground and prevent light spill.</li> <li>○ Lighting fixtures should make use of minimum lumen or wattage.</li> <li>○ Mounting heights of lighting fixtures should be limited, or alternatively, foot-light or bollard level lights should be used.</li> <li>○ Where possible, limit the number of maintenance vehicles using access roads.</li> <li>○ Buildings on the substation sites should be painted with natural</li> </ul>	Ensure that visual mitigation measures are monitored by the management team on an on-going basis. This will include monitoring activities associated with visual impacts such as the control of signage, lighting and maintenance vehicles on access roads.	Ongoing during operation	<ul style="list-style-type: none"> <li>▪ ESKOM</li> </ul>

Impact	Mitigation / Management Objectives	Mitigation / Management Actions	Monitoring		
			Methodology	Frequency	Responsibility
		tones that fit with the surrounding environment. ○ Non-reflective surfaces should be utilised where possible.			
<b>C. DECOMMISSIONING PHASE</b>					
<b>C.1. VISUAL IMPACTS</b>					
Potential impact on visual resources as a result of the proposed grid connection infrastructure.	Avoid or minimize impacts of decommissioning activities on existing visual resources and potentially sensitive receptor locations in the surrounding area.	<ul style="list-style-type: none"> <li>○ Carefully plan to reduce the decommissioning period.</li> <li>○ Inform receptors within 500m of decommissioning works of the decommissioning programme and schedules.</li> <li>○ All infrastructure that is not required for post-decommissioning use should be removed.</li> <li>○ Minimise vegetation clearing and rehabilitate cleared areas as soon as possible.</li> <li>○ Make use of existing gravel access roads where possible.</li> <li>○ Limit the number of vehicles and trucks travelling to and from the proposed sites, where possible.</li> <li>○ Ensure that dust suppression techniques are implemented:               <ul style="list-style-type: none"> <li>○ on all access roads;</li> </ul> </li> </ul>	Ensure that procedures for the removal of structures and stockpiles during decommissioning are implemented, including recycling of materials. In addition, it must be ensured that rehabilitation of the site to a visually acceptable standard is undertaken.	During decommissioning	<ul style="list-style-type: none"> <li>▪ MC, EO and ECO</li> </ul>

Impact	Mitigation / Management Objectives	Mitigation / Management Actions	Monitoring		
			Methodology	Frequency	Responsibility
		<ul style="list-style-type: none"> <li>○ in all areas where vegetation clearing has taken place; and</li> <li>○ on all soil stockpiles.</li> </ul>			

## **7 CONCLUSION**

### **7.1 Rietkloof WEF**

SiVEST has assessed the previous VIAs undertaken in respect of the proposed Rietkloof WEF in conjunction with the proposed changes to the turbine specifications and the updated layout (2021\_11\_11 EMPr Layouts Rietkloof WF rev B.kmz) received on 13<sup>th</sup> November 2021. Based on this assessment, it is SiVEST's opinion that the proposed amendments do not give rise to any additional impacts or exacerbate the impacts previously identified in the VIA for this development. No additional mitigation measures or specialist input into the EMPr are deemed necessary. Given the low level of human habitation and the relative absence of sensitive receptors in the area, the site layout is deemed acceptable from a visual perspective and the Environmental Authorisation (EA) should be amended. SiVEST is of the opinion that the impacts associated with the construction, operation and decommissioning phases can be mitigated to acceptable levels provided the recommended mitigation measures are implemented.

### **7.2 132kV Power Line**

From a visual perspective, potential impacts of the proposed power line have been identified and suitable mitigation measures have been recommended for input into the updated EMPr for the proposed power line.

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