



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Private Bag X 447· PRETORIA ·0001· Environment House ·473 Steve Biko Road, Arcadia· PRETORIA

DFFE Reference: 14/12/16/3/3/2/2240

Enquiries: Coenrad Agenbach

Telephone: (012) 399 9403 **E-mail:** CAgenbach@dffe.gov.za

Ms Romaya Dorasamy
Great Karoo Renewable Energy (Pty) Ltd
53 Carlisle Street
Paarden Eiland
CAPE TOWN
7405

Email Address: romaya@greatkaroo.energy

PER E-MAIL

Dear Mr Dorasamy

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: THE MERINO WIND FARM, NORTHERN CAPE PROVINCE

With reference to the above application, please be advised that the Department has decided to grant authorisation. The Environmental Authorisation (EA) and reasons for the decision are attached herewith.

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within fourteen (14) days of the date of the decision, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, Act No. 3 of 2000, you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, Act No. 4 of 2013 which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuses or compromises your personal information in any way.

Your attention is drawn to Chapter 2 of the National Environmental Management Act, Act No. 107 of 1998 National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

M.S.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

The Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appeals@dffe.gov.za;

By hand: Environment House
473 Steve Biko
Arcadia
Pretoria
0083; or

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.dffe.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appeals@dffe.gov.za.

Yours faithfully


Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment
Date: 15/05/2023

cc:	Tobias Hobbach	Great Karoo Renewable Energy (Pty) Ltd	Email: tobias@greatkaroo.energy
	Bryan Fisher	NC DAEARDLR	Email: Bfisher@ncpg.gov.za
	Debere Maphosa	Ubuntu Local Municipality	Email: maphosa.d@gmail.com
	Jo-Anne Thomas	Savannah Environmental (Pty) Ltd	Email: joanne@savannahsa.com

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forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014, as amended

The Merino Wind Farm, Northern Cape Province

Pixley Ka Seme District Municipality

Authorisation register number:	14/12/16/3/3/2/2240
Last amended:	First issue
Holder of authorisation:	Great Karoo Renewable Energy (Pty) Ltd
Location of activity:	Portion 1 of Farm Rondavel 85; Portion 0 of Farm Rondavel 85; Portion 9 of Farm Bult & Rietfontein 96; Portion 0 of Farm Vogelstruisfontein 84; Richmond; Ubuntu Local Municipality; Pixley Ka Seme District Municipality; Northern Cape Province.

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

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Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this Environmental Authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this Environmental Authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, Act No. 107 of 1998, as amended and the EIA Regulations, 2014, as amended.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

GREAT KAROO RENEWABLE ENERGY (PTY) LTD

(hereafter referred to as the **holder of the authorisation**)

with the following contact details –

Ms Romaya Dorasamy

53 Carlisle Street

Paarden Eiland

CAPE TOWN

7405

Email Address: romaya@greatkaroo.energy

to undertake the following activities (hereafter referred to as “the activity”) indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 of the EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>Listing Notice 1, Item 11:</u> <i>“The development of facilities or infrastructure for the transmission and distribution of electricity – (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV.”</i></p>	<p>Internal electrical infrastructure required to connect the Merino Wind Farm to the grid connection infrastructure will consist of a 132kV onsite substation and 132kV cabling (buried or overhead) and will collectively exceed 2km outside an urban area.</p>
<p><u>Listing Notice 1, Item 12:</u> <i>“The development of – (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs – (a) within a watercourse.”</i></p>	<p>The construction and operation of the Merino Wind Farm and associated infrastructure will include the development of some infrastructure within seepage wetlands, rivers, and floodplains, as well as within 32m of these watercourses. The infrastructure will have a physical footprint of more than 100 square metres.</p>
<p><u>Listing Notice 1, Item 14:</u> <i>“The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 80 but not exceeding 500 cubic metres.”</i></p>	<p>The development of the Merino Wind Farm will require the construction and operation of facilities and infrastructure for the storage and handling of dangerous goods (combustible and flammable liquids, such as oils, lubricants, solvents) associated with the on-site substations, where such storage will occur inside containers with a combined capacity exceeding 80 cubic meters but not exceeding 500 cubic meters.</p>

<p><u>Listing Notice 1, Item 19:</u> <i>"The infilling or depositing of any material of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from a watercourse."</i></p>	<p>Parts of the development area for the Merino Wind Farm are located within watercourses. Therefore, during the construction phase, 10 cubic metres or more of rock will be removed from the watercourses.</p>
<p><u>Listing Notice 1, Item 24:</u> <i>"The development of a road – (ii) with a reserve wider than 13.5 m, or where no reserve exists where the road is wider than 8 m;"</i></p>	<p>The construction of the Merino Wind Farm will require the construction of new access roads in areas where no road reserve exists to provide access to the facility. These will exceed 8m in width.</p>
<p><u>Listing Notice 1, Item 28:</u> <i>"Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 ha;"</i></p>	<p>The total area to be developed (i.e. the development footprint) for the Merino Wind Farm is greater than 1ha and occurs outside an urban area in an area currently zoned for agriculture.</p>
<p><u>Listing Notice 1, Item 56:</u> <i>"The widening of a road by more than 6 m, or lengthening of a road by more than 1 km – (ii) where no reserve exists, where the existing road is wider than 8 metres;"</i></p>	<p>Existing farm roads within the project site may require widening and access roads will be widened by more than 6 metres.</p>
<p><u>Listing Notice 2, Item 01:</u> <i>"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 MW or more."</i></p>	<p>The project comprises a renewable energy generation facility, which will utilise wind power technology and will have a generation capacity of up to 140MW.</p>

<p><u>Listing Notice 2, Item 15:</u> <i>"The clearance of an area of 20 hectares or more of indigenous vegetation."</i></p>	<p>The facility is located on agricultural land where the predominant land use is livestock grazing and is therefore likely to comprise indigenous vegetation. The project would therefore result in the clearance of indigenous vegetation within an area in excess of 20ha for the development of infrastructure.</p>
<p><u>Listing Notice 3, Item 04:</u> <i>"The development of a road wider than 4 metres with a reserve less than 13,5 metres.</i> <i>g. Northern Cape</i> <i>ii. Outside urban areas:</i> <i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans."</i></p>	<p>The development of the Merino Wind Farm and associated infrastructure will require the development of roads wider than 4m within a CBA, specifically CBA 1, outside urban areas within the Northern Cape Province.</p>
<p><u>Listing Notice 3, Item 10</u> <i>"The development and related operation of facilities or infrastructure for the storage, or storage and handling of a dangerous good where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres</i> <i>g. Northern Cape</i> <i>ii. Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland.</i> <i>iii. Outside urban areas:</i> <i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans."</i></p>	<p>The development of the Merino Wind Farm will require the construction and operation of facilities for the storage and handling of a dangerous good (combustible and flammable liquids, such as oils, lubricants, solvents) associated with the on-site substations, where such storage will include inside containers with a capacity of 80 cubic meters within CBA areas. There are watercourses located within parts of the development area for the Merino Wind Farm, namely seepage and channelled valley bottom wetlands and rivers. The development area also falls within a CBA1, outside an urban area and within the Northern Cape Province.</p>

<p><u>Listing Notice 3. Item 12</u></p> <p><i>"The clearance of an area of 300 square metres or more of indigenous vegetation</i></p> <p><i>g. Northern cape</i></p> <p><i>ii. Within critical biodiversity areas identified in bioregional plans"</i></p>	<p>The development of the Merino Wind Farm will require the clearance of more than 300 square meters of indigenous vegetation within a CBA1 in the Northern Cape Province.</p>
<p><u>Listing Notice 3. Item 14:</u></p> <p><i>"The development of-</i></p> <p><i>(ii) infrastructure or structures with a physical footprint of 10 square metres or more;</i></p> <p><i>where such development occurs-</i></p> <p><i>(a) within a watercourse; or</i></p> <p><i>(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</i></p> <p><i>g. Northern Cape</i></p> <p><i>ii. Outside urban areas:</i></p> <p><i>(ff) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;"</i></p>	<p>The development of the Merino Wind Farm will require the establishment of infrastructure with a physical footprint exceeding 10m² within seepage wetlands, rivers and floodplains, as well as within 32m of these watercourses. The project site comprises areas classified as CBA1 and Ecological Support Areas and falls outside of an urban area.</p>
<p><u>Listing Notice 3. Item 18:</u></p> <p><i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p><i>g. Northern</i></p> <p><i>ii. Outside urban areas:</i></p> <p><i>(ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</i></p> <p><i>(ii) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland"</i></p>	<p>The development of the Merino Wind Farm will require the widening of roads by more than 4m, outside urban areas, within areas classified as CBA1, and within a watercourse or wetland and within 100m from the edge of a watercourse or wetland (i.e., seepage and channelled valley bottom wetlands and rivers) in the Northern Cape Province.</p>

as described in the Environmental Impact Assessment Report (EIAR) dated January 2023 at:

SG 21 Codes:

C	0	6	3	0	0	0	0	0	0	0	0	0	0	9	6	0	0	0	0	9
C	0	6	3	0	0	0	0	0	0	0	0	0	0	8	4	0	0	0	0	0
C	0	6	3	0	0	0	0	0	0	0	0	0	0	8	5	0	0	0	0	1
C	0	6	3	0	0	0	0	0	0	0	0	0	0	8	5	0	0	0	0	0

Site Coordinates:

Centre of development	Latitude	Longitude
	31°29'36.88"S	23°37'50.76"E

- for the Merino Wind Farm, Northern Cape Province, hereafter referred to as "the property".

Infrastructure associated with the Merino Wind Farm will include:

- Up to 35 wind turbines with a maximum hub height of up to 170m and tip height of up to 250m.
- Concrete turbine foundations to support the turbine hardstands.
- Inverters and transformers.
- Temporary laydown areas which will accommodate storage and assembly areas.
- Cabling between the turbines, to be laid underground where practical.
- A temporary concrete batching plant.
- 33/132kV onsite facility substation.
- Underground cabling from the onsite substation to the 132kV collector substation.
- Electrical and auxiliary equipment required at the collector substation that serves the wind energy facility, including switchyard/bay, control building, fences, etc.
- Battery Energy Storage System (BESS).
- Access roads and internal distribution roads.
- Site offices and maintenance buildings, including workshop areas for maintenance and storage.

Technical details of the proposed facility:

Component	Description/ Dimensions
Access and internal roads	Wherever possible, existing access roads will be utilised to access the project site and development area. It is unlikely that access roads will need to be upgraded as part of the proposed development. Internal roads of up to 4.5m in width will be required to access each turbine and the on-site substation.
Contracted Capacity	Up to 140MW (individual turbines up to 4MW in capacity each)
Number of Turbines	Up to 35 turbines
Hub height	Up to 170m
Tip height	Up to 250m
Turbine hardstand	~80m x 35m
Turbine foundation	Diameter of up to 25m per turbine
Area occupied by the wind turbines and associated infrastructure (development footprint)	~2 800ha
Tower Type	Steel or concrete towers can be utilised at the site. Alternatively, the towers can be of a hybrid nature, comprising concrete towers with top steel sections
Grid connection	The 33/132kV on-site substation will be connected to the proposed 132kV central collector substation via underground cabling with a capacity of up to 132kV. A new 132kV single- or double-circuit power line will run from the central collector substation and tie into the existing Eskom Gamma Substation. The switching station forming part of the 132kV collector substation and the new 132kV single- or double-circuit will be assessed as part of a separate Basic Assessment process in support of an application for Environmental Authorisation.
Area occupied by the on-site facility substation	~1000m x 700m
Capacity of on-site facility substation	33kV/132kV
Underground cabling between the turbines	Underground cabling will be installed at a depth of up to 1.5m to connect the turbines to the on-site facility substation. The cabling will have a capacity of up to 33kV.

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Area occupied by the electrical and auxiliary equipment required at the collector substation	100 x 100m
Area occupied by laydown area	~1000m x 700m
Temporary infrastructure	Temporary infrastructure, including laydown areas, hardstand areas and a concrete batching plant, will be required during the construction phase. All temporary infrastructure will be rehabilitated following the completion of the construction phase, where it is not required for the operation phase.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The Merino Wind Farm in the Northern Cape Province is approved as per the geographic coordinates cited in the table above.
2. Authorisation of the activity is subject to the conditions contained in this Environmental Authorisation, which form part of the Environmental Authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this Environmental Authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further Environmental Authorisation in terms of the regulations.
6. The holder of an Environmental Authorisation must apply for an amendment of the Environmental Authorisation with the Competent Authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of ten (10) years from the date of issue of this Environmental Authorisation. If commencement of the activity does not occur within that period, the authorisation lapses

and a new application for Environmental Authorisation must be made in order for the activity to be undertaken.

8. Construction must be completed within five (05) years of the commencement of the activity on site.
9. Commencement with one activity listed in terms of this Environmental Authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this Environmental Authorisation, of the decision to authorise the activity.
11. The notification referred to must –
 - 11.1. specify the date on which the authorisation was issued;
 - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request;
and
 - 11.4. give the reasons of the Competent Authority for the decision.

Commencement of the activity

12. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended will suspend the Environmental Authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

13. A final site layout plan for the Merino Wind Farm, Northern Cape Province, as determined by the detailed engineering phase and micro-siting of the wind turbine positions, and all mitigation measures as dictated by the final site layout plan, must be submitted to the Department for approval prior to construction. A copy of the final site layout map must be made available for comments to registered Interested and

Affected Parties and the holder of this Environmental Authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval prior to commencement of the activity. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g., roads. The layout map must indicate the following:

- 13.1. The position of wind turbines and associated infrastructure;
 - 13.2. Internal roads indicating width;
 - 13.3. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
 - 13.4. All sensitive features e.g., Important Bird Areas, Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
 - 13.5. Substation(s) inverters and/or transformer(s) sites including their entire footprint;
 - 13.6. Connection routes (including pylon positions) to the distribution/transmission network;
 - 13.7. All existing infrastructure on the site, such as roads;
 - 13.8. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
 - 13.9. Buildings, including accommodation; and,
 - 13.10. All "no-go" and buffer areas.
14. The Environmental Management Programme (EMPr) submitted as part of the EIAr dated January 2023 is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this Environmental Authorisation. The EMPr must be made available for comments by registered Interested and Affected Parties and the holder of this Environmental Authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity.
15. The EMPr amendments must include the following:
- 15.1. All recommendations and mitigation measures recorded in the EIAr and the specialist reports as included in the final EIAr dated January 2023.
 - 15.2. The requirements and conditions of this authorisation.
 - 15.3. An effective monitoring system to detect any leakage or spillage of any hazardous substances during their transportation, handling, use and storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
 - 15.4. A transportation plan for the transport of turbine components, main assembly cranes and other large equipment.
 - 15.5. An environmental sensitivity map indicating environmentally sensitive areas and features identified during the EIA process.

- 15.6. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmentally sensitive areas from construction impacts including the direct or indirect spillage of pollutants.
16. Part C (Site Specific Environmental Attributes) of the generic EMPr for the substations and all associated infrastructure, submitted as part of the final EIAr dated January 2023, is not approved. Part C must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this Environmental Authorisation. Part C of the generic EMPrs must be made available for comments to registered Interested and Affected Parties and the holder of this Environmental Authorisation must consider such comments. Once amended, the generic EMPrs must be submitted to the Department for written approval of Part C prior to commencement of the activity. Part C of the generic EMPrs must be amended to include the following:
- 16.1. The requirements and conditions of this Environmental Authorisation;
 - 16.2. Measures as dictated by the final site lay-out map and micro-siting;
 - 16.3. All recommendations and mitigation measures recorded in the EIAr and the specialist reports as included in the final EIAr dated January 2023;
 - 16.4. All recommendations and mitigation measures to be implemented for the operational phase of the dangerous goods facility;
 - 16.5. An effective monitoring system to detect any leakage or spillage of any hazardous substances during their transportation, handling, use or storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems;
 - 16.6. A fire management plan to be implemented during the construction and operation of the facility;
 - 16.7. A re-vegetation and habitat rehabilitation plan. The plan must provide for restoration to be undertaken as soon as possible after completion of construction activities, to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
 - 16.8. An aquatic rehabilitation and monitoring plan, particularly for watercourse features that will be infilled and / or excavated;
 - 16.9. A stormwater management plan; and
 - 16.10. The final site layout map.
17. Once approved the EMPrs must be implemented and adhered to. They shall be seen as dynamic documents and shall be included in all contract documentation for the development.
18. Changes to the approved EMPrs must be submitted in accordance with the EIA Regulations applicable at the time.
19. The Department reserves the right to amend the approved EMPrs should any impacts that were not anticipated or covered in the EIAr be discovered.

Frequency and process of updating the EMPr

20. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 27 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the Environmental Authorisation or EMPr.
21. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
22. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
23. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 as amended. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
24. The holder of the authorisation must apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of the EIA Regulations, 2014, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

25. The holder of the authorisation must appoint an experienced Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this Environmental Authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
 - 25.1. The ECO must be appointed before commencement of any authorised activities.
 - 25.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.

- 25.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 25.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

26. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this Environmental Authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
27. The holder of the Environmental Authorisation must, for the period during which the Environmental Authorisation and EMPr remain valid, ensure that project compliance with the conditions of the Environmental Authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.
28. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of the EIA Regulations, 2014 as amended.
29. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
30. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 as amended and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the Environmental Authorisation conditions as well as the requirements of the approved EMPr.
31. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

32. A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.

Operation of the activity

33. A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.

Site closure and decommissioning

34. Should the activity ever cease or become redundant, the holder of the authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and Competent Authority at that time.

Specific conditions

Avifauna and bats

35. The results of the pre-construction bird monitoring assessment including all recommendations proposed by the reports dated June 2022, must inform the final layout and the construction schedule of the WEF.
36. A 3.7km infrastructure free buffer zone must be implemented around the Verreaux's Eagle nest near the site (at -31.425449° 23.702398°).
37. A 3km infrastructure free buffer zone must be implemented around the Tawny Eagle nests at (-31.540635°, 23.716886°) and (-31.445988°, 23.583921°).
38. A 5km infrastructure free buffer zone must be implemented around the Martial Eagle nest (at -31.524550°, 23.534279°).
39. The facility must be designed in a manner that, infrastructure components that could be used as perching or roosting substrates by birds and bats must be prohibited.
40. The holder of this Environmental Authorisation must restrict the construction activities to the footprint area. No access to the remainder of the property is allowed.
41. Anti-collision devices such as bird flappers must be installed where power lines cross avifaunal corridors (e.g. grasslands, rivers, wetlands, and dams). The input of an avifaunal specialist must be obtained for the fitting of the anti-collision devices onto specific sections of the line once the exact positions of the towers have been surveyed and pegged. Additional areas of high sensitivity along the preferred alignment must also be identified by the avifaunal specialist for the fitment of anti-collision devices. These devices must be according to Eskom's Transmission and EWT's Guidelines.

42. A pre-construction walk through of the approved power line alignment and turbine positions by a bat specialist, avifaunal specialist and ecologist, must be conducted to ensure that the micro-siting of the turbines, pylons and power line alignment have the least possible impact, there are no nests sites of priority species on or close to the construction corridor, and all protected plant species impacted are identified.
43. A construction monitoring plan must be developed and be implemented to survey impacts resulting from the infrastructure installation on the bird communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as continue to gather information on the bird communities present in the area and monitor the effectiveness of the mitigation measures for a minimum duration of at least three years during operation.
44. A bat monitoring program to determine the actual impacts on the bat community must be carried out for a minimum of three years, and utilization of red lights in the turbines to minimize insect attraction and bat foraging behaviours near the turbines is encouraged.
45. All bird monitoring must be conducted in accordance with the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa.

Vegetation, wetlands and water resources

46. The 'no-go' areas of the development property must be clearly demarcated and must be excluded from the final layout plan.
47. All watercourses and associated wetlands are regarded as sensitive. All developments within 500m of watercourses must comply with the National Water Act.
48. No transmission line towers, substations and construction camps will be placed within the delineated water courses as well as their respective buffers without obtaining the required approvals. A 32m buffer must be applied along all identified watercourses and a 50m buffer must be applied along all identified wetlands.
49. A pre-construction survey of the final development footprint must be conducted by a qualified floral specialist to identify protected species affected by the proposed development. Prior to the commencement of construction, a rescue and rehabilitation operation for these species which could survive translocation must be conducted.
50. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.

51. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan to be included in the final EMPr.
52. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
53. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
54. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
55. Removal of alien invasive species or other vegetation and follow-up procedures must be in accordance with the Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983).
56. Contractors and construction workers must be clearly informed of the no-go areas.
57. Where roads pass right next to major water bodies, provision shall be made for fauna such as toads to pass under the roads by using culverts or similar structures.
58. Bridge design must be such that it minimise impact to riparian areas with minimal alterations to water flow and must allow the movement of fauna and flora.
59. The final development area should be surveyed for species suitable for search and rescue, which should be trans-located prior to the commencement of construction.
60. Electric fencing should not have any strands within 30cm of the ground, which should be sufficient to allow smaller mammals, reptiles and tortoises to pass through, but still remain effective as a security barrier.
61. Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.
62. Wetlands, rivers and river riparian areas must be treated as "no-go" areas and appropriately demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.
63. Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and in wetland areas and this awareness must be promoted throughout the construction phase.
64. Freshwater ecosystems located in close proximity to the construction areas must be inspected on a regular basis by the ECO for signs of disturbance from construction activities. If signs of disturbance are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.
65. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
66. If construction areas are to be pumped of water (e.g. after rains), this water must be pumped into an appropriate settlement area, and not allowed to flow into any rivers or wetland areas.

67. Workers must be made aware of the importance of not polluting rivers or wetlands and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.
68. Freshwater ecosystems located in close proximity to the site must be inspected on a regular basis (but especially after rainfall) by the ECO for signs of sedimentation and pollution. If signs of sedimentation or pollution are noted, immediate action must be taken to remedy the situation and, if necessary, a freshwater ecologist must be consulted for advice on the most suitable remediation measures.

Roads and transportation

69. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration should be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
70. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.
71. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
72. Signage must be erected at appropriate points warning of turning traffic and the construction site.
73. Construction vehicles carrying materials to the site should avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
74. Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
75. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
76. All construction vehicles should adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.

Noise

77. The potential noise impact must be re-evaluated should the layout be changed such that any wind turbines are located closer than 1,000m from a confirmed noise sensitive area.
78. The holder of this authorisation must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA must wear ear protection equipment.
79. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.

80. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
81. Positions of turbines jeopardizing compliance with accepted noise levels should be revised during the micro-siting of the units in question and predicted noise levels re-modelled by the noise specialist, in order to ensure that the predicted noise levels are less than 45dB(A).
82. Construction staff must be trained in actions to minimise noise impacts.

Visual resources

83. The holder of this authorisation must reduce visual impacts during construction by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques and restoring exposed soil as closely as possible to their original contour and vegetation.
84. A lighting engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce visual impacts associated with glare and light trespass.
85. Lighting of main structures (turbines) and ancillary buildings should be designed to minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.
86. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
87. Commercial messages and graffiti on turbines are prohibited.

Human health and safety

88. A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the energy facility. The programme must establish a safety zone for wind turbines from residences and occupied buildings, roads, right-of-ways and other public access areas that is sufficient to prevent accidents resulting from the operation of the wind turbines.
89. Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
90. The holder of this authorisation must obtain approval from the South Africa Civil Aviation Authority that the wind facility will not interfere with the performance of aerodrome radio Communication, Navigation and Surveillance (CNS) equipment, especially the radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.

91. The holder of this authorisation must obtain approval from the South Africa Weather Services (WeatherSA) that the energy facility will not interfere with the performance of their equipment, especially radar, prior to commencement of the activity. A copy of the approval must be kept on site by the ECO.
92. The holder of this authorisation must train safety representatives, managers and workers in workplace safety. The construction process must be compliant with all safety and health measures as prescribed by the relevant act.
93. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
94. No unsupervised open fires for cooking or heating must be allowed on site.

Hazardous materials and waste management

95. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
96. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
97. Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste.
98. No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.
99. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
100. Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored nor may any vehicle maintenance occur within 350m of the temporal zone of wetlands, a drainage line with or without an extensive floodplain or hillside wetlands.
101. Temporary bunds must be constructed around chemical storage to contain possible spills.
102. Spill kits must be made available on-site for the clean-up of spills.
103. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).
104. The holder of this authorisation must provide sanitation facilities within the construction camps and along the road so that workers do not pollute the surrounding environment. These facilities must be removed

from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste disposal site.

105. The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014.

Excavation and blasting activities

106. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
107. Foundations and trenches must be backfilled with originally excavated materials as much as possible. Excess excavation materials must be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.
108. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
109. Anti-erosion measures such as silt fences must be installed in disturbed areas.

Air emissions

110. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
111. Appropriate dust suppression techniques must be implemented on all exposed surfaces during periods of high wind. Such measures may include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.

Historical / cultural / paleontological resources

112. A 30m buffer must be applied around all identified archaeological sites.
113. After initial vegetation clearance has taken place but before the ground is levelled for construction, a professional palaeontologist must undertake a walkthrough and document any identified paleontological findings. The survey/walkthrough must be conducted as per the South African Heritage Resources Agency (SAHRA) requirements.
114. Should any archaeological sites, artefacts, paleontological fossils or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, SAHRA must be informed

- and the services of an accredited heritage professional obtained for an assessment of the heritage resources to be made
115. Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may be encountered and the procedures to follow when they find sites.
 116. All buffers and no-go areas stipulated in this report must be adhered to for both the facilities and all roads and power lines.
 117. Should any human remains be uncovered during development they must be immediately protected in situ and reported to the heritage authorities or to an archaeologist. The remains will need to be exhumed at the cost of the developer.
 118. All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) should be kept out of the buffer zones.
 119. The final layout should be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.

Turbines position

120. The approved turbines must be placed in a manner to avoid all designated, "no-go" areas as well as its buffers.
121. The final placement of turbines must follow a micro siting procedure involving a walk-through and identification of any sensitive areas by botanical and avifaunal specialists.
122. Exclusion of sensitive ecological, heritage and paleontological areas from construction activities must inform micro siting of all development activities.

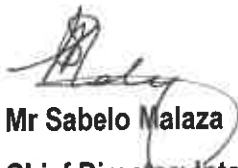
General

123. The recommendations of the EAP in the EIAR dated January 2023 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.
124. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 124.1. at the site of the authorised activity;
 - 124.2. to anyone on request; and

124.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.

125. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of Environmental Authorisation: 15/05/2023



Mr Sabelo Malaza

**Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment**

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Annexure 1: Reasons for Decision

1. Information considered in making the decision

In reaching its decision, the Department took, *inter alia*, the following into consideration -

- a) The listed activities as applied for in the application form received on 14 November 2022.
- b) The information contained in the EIAr dated January 2023.
- c) The comments received from interested and affected parties as included in the EIAr dated January 2023.
- d) Mitigation measures as proposed in the EIAr and the EMPs.
- e) The information contained in the specialist studies contained within the appendices of the EIAr dated January 2023.

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project stems from the provision of electricity to the national grid.
- c) The EIAr dated January 2023 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The location of the proposed wind energy facility.
- e) The methodology used in assessing the potential impacts identified in the EIAr dated January 2023 and the specialist studies have been adequately indicated.
- f) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 as amended for public involvement.

3. Findings

After consideration of the information and factors listed above, the Department made the following findings -

- a) The identification and assessment of impacts are detailed in the EIAr dated January 2023 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The information contained in the EIAr dated January 2023 is deemed to be accurate and credible.

- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAR and will be implemented to manage the identified environmental impacts during the construction phase.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the Environmental Authorisation, the authorised activities will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The Environmental Authorisation is accordingly granted.