



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: 14/12/16/3/3/2/2164

Enquiries: Dr Danie Smit

Telephone: (012) 399 9493E-mail: DSmit@dff.gov.za

Mr Ralf Grass
FE Botterblom (Pty) Ltd
60 Hennie Winterbach Street
PANORAMA
Western Cape
7500

Telephone Number: (084) 548 4262

Email Address: ralf.grass@energyteam.co.za / millard.kotze@genesis-eco.com

PER EMAIL / MAIL

Dear Mr Grass

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE PROPOSED BOTTERBLOM WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE NORTH OF LOERIESFONTEIN IN THE 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 14 (fourteen) days of the date of the 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 stipulate 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 abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of 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 prescribes 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.

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

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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.environment.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: 13/04/2023

cc:	Mr Corne Niemandt	Enviro-Insight CC	Email: corne@enviro-insight.co.za
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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.

Botterblom Wind Energy Facility and associated infrastructure north of Loeriesfontein in the Northern
Cape Province

Namakwa District Municipality

Authorisation register number:	14/12/16/3/3/2/2164
Last amended:	First issue
Holder of authorisation:	FE BOTTERBLOM (PTY) LTD
Location of activity:	Portion of the Remainder of the Farm Sous 226 Ward 5 of Hantam Local Municipality, Namakwa 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.

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 –

FE BOTTERBLOM (PTY) LTD

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

with the following contact details –

Mr Ralf Grass
FE Botterblom (Pty) Ltd
60 Hennie Winterbach Street
PANORAMA
Western Cape
7500

Telephone Number: (084) 548 4264

Email Address: ralf.grass@energyteam.co.za

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> (i) <i>outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts;</i></p>	<p>The proposed site is zoned as Agricultural land which falls outside of an urban area. Project infrastructure will include facilities or infrastructure for the transmission and distribution of electricity, namely underground cables from the turbines to the onsite substation. Take note that the onsite substation along with the connection to the Helios substation is not included in this application and separate basic assessment process will be followed. A BESS will also be constructed.</p>
<p><u>Listing Notice 1, Item 12:</u> <i>The development of –</i> (ii) <i>infrastructure or structures with a physical footprint of 100 square meters or more;</i> <i>where such development occurs-</i> (a) <i>within a watercourse; or</i> (c) <i>within 32 meters of a watercourse, measured from the edge of a watercourse.</i></p>	<p>The proposed turbines and associated infrastructure including access roads and laydown areas located within a watercourse or the 32m buffer area. The final placement of all infrastructures will be refined during the process and avoid the watercourse and indicated buffer as far as possible. during the construction phase.</p>
<p><u>Listing Notice 1, Item 14:</u> <i>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</i></p>	<p>Storage of fuel, oil and other chemicals on site for use during the construction phase could trigger this activity. It is anticipated that the stored dangerous goods will exceed the combined capacity of 80m³ however, will not exceed 500m³.</p>

<p><u>Listing Notice 1, Item 19:</u></p> <p><i>The infilling or depositing of any material of more than 10 m³ into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 m³ from a watercourse;</i></p>	<p>The infilling or depositing of any material of more than 10 m³ into a watercourse may be triggered with the construction of internal service roads or cables across drainage lines.</p>
<p><u>Listing Notice 1, Item 24:</u></p> <p>The development of a road – (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres.</p>	<p>Roads are required throughout the construction and operational stages of the project. during the construction phase, roads will be approximately 12m wide for the delivery of turbine parts and other equipment, and approximately 8m wide during the operational phase for maintenance purposes.</p>
<p><u>Listing Notice 1, Item 28:</u></p> <p><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:</i> (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.</p>	<p>The current land use of the proposed farm on which the project is proposed is agriculture. The proposed project is considered to be a commercial / industrial development and will have a footprint that exceeds 1 ha.</p>
<p><u>Listing Notice 1, Item 56:</u></p> <p><i>The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre – (ii) where no reserve exists, where the existing road is wider than 8 metres.</i></p>	<p>The widening of portions of existing roads or the lengthening of roads will be required to accommodate the logistical construction requirements to access the site and associated infrastructure.</p>
<p><u>Listing Notice 2, Item 01:</u></p> <p><i>The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more.</i></p>	<p>The Botterblom WEF will consist of up to 35 turbines with a capacity of up to 7.5MW each, depending on the available technology at the time of construction.</p>

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<p><u>Listing Notice 2, Item 15:</u></p> <p><i>The clearance of an area of 20 hectares or more of indigenous vegetation.</i></p>	<p>The total area to be cleared is expected to be approximately 55 ha, depending on the final layout. This includes turbine placement, roads, and other permanent infrastructure. During the construction phase, some areas will be cleared for the laydown, storage and assembly areas which will be rehabilitated post construction.</p>
<p><u>Listing Notice 3, Item 04:</u></p> <p><i>The development of a road wider than 4 metres with a reserve less than 13,5 metres. g. Northern Cape ii. Outside urban areas: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p>	<p>The proposed project involves the construction of a road wider than 4m. A CBA runs through the study area which cannot be avoided by the construction of the internal roads connecting the turbines to one another. Where possible, roads will be rehabilitated after the construction phase.</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 proposed project will clear indigenous vegetation of more than 300m² within the CBA for the development and expansion of internal roads.</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 meters or more; where such development occurs –</i></p> <p><i>(a) within a watercourse; or</i></p> <p><i>(c) within 32 meters 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 proposed turbines and associated infrastructure including access roads and laydown areas during the construction phase located within a watercourse or the 32m buffer area. The final placement of all infrastructures will be refined during the process and avoid the watercourse and indicated buffer as far as possible within the CBA.</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. g. Northern Cape.</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 widening of existing roads by more than 4 metres will take place within the CBA and watercourses.</p>
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as described in the Environmental Impact Assessment Report (EIAr) dated December 2022 at:

Wind Turbine layout number	Latitude	Longitude
WT01	30°26'53.65"S	19°27'53.36"E
WT02	30°27'1.70"S	19°28'12.62"E
WT03	30°27'7.50"S	19°28'30.41"E
WT04	30°27'13.65"S	19°28'48.39"E
WT05	30°27'20.44"S	19°29'5.75"E
WT06	30°27'26.89"S	19°29'23.50"E
WT07	30°27'33.29"S	19°29'40.68"E
WT08	30°27'39.36"S	19°29'56.94"E
WT09	30°27'45.73"S	19°30'14.91"E
WT10	30°27'52.18"S	19°30'30.45"E
WT11	30°27'57.27"S	19°30'46.87"E
WT12	30°28'3.34"S	19°31'3.24"E
WT13	30°28'9.67"S	19°31'19.87"E
WT14	30°28'15.13"S	19°31'35.20"E
WT15	30°28'21.26"S	19°31'51.75"E
WT16	30°28'28.04"S	19°32'8.19"E
WT17	30°28'34.67"S	19°32'31.68"E
WT18	30°28'43.34"S	19°32'48.76"E
WT19	30°28'49.55"S	19°33'9.71"E
WT20	30°29'1.98"S	19°33'58.28"E
WT21	30°28'40.75"S	19°34'9.04"E

WT22	30°28'26.00"S	19°33'30.76"E
WT23	30°28'11.12"S	19°32'59.59"E
WT24	30°28'3.94"S	19°34'28.04"E
WT25	30°27'57.73"S	19°34'1.66"E
WT26	30°27'51.94"S	19°33'46.14"E
WT27	30°27'46.18"S	19°33'30.48"E
WT28	30°27'38.25"S	19°33'9.34"E
WT29	30°27'31.69"S	19°32'52.08"E
WT30	30°26'46.15"S	19°27'28.93"E
Laydown Area	30°28'17.08"S	19°33'14.36"E
BESS	30°28'24.12"S	19°33'14.36"E
O&M	30°28'13.35"S	19°33'10.97"E
Accommodation	30°29'53.84"S	19°33'24.93"E
Access road 1 entrance	30°28'31.26"S	19°33'21.58"E
Access road 2 entrance	30°28'31.27"S	19°33'22.34"E

- for the development of Botterblom Wind Energy Facility and associated infrastructure north of Loeriesfontein, Cape Province, hereafter referred to as "the property".

The components of the WEF and associated infrastructure are as follows:

- up to 32 wind turbines, with a generation capacity of up to 7.5 MW per turbine (depending on the available technology at the time),
- turbines will consist of 3 blades with a hub height of up to 150m and a rotor diameter of up to 175m. The final turbine model to be utilised will only be determined closer to the time of construction (depending on the technology available at the time),
- a Battery Energy Storage System (BESS),
- concrete foundations to support turbine towers, to be laid underground where practical,
- cabling between turbines, to be laid underground where practical,
- internal/ access roads (up to 10 m in width during the construction phase) linking the wind turbines and other infrastructure on the site,
- permanent workshop area, administrative buildings and offices for control, maintenance and storage, and temporary laydown areas during the construction phase (which will be rehabilitated).

Technical details of the WEF:

Infrastructure	Description/ Dimensions
Number of turbines	Up to 32.
Hub Height	150m
Rotor Diameter	175m
Turbine Capacity (MW)	between 4.5 and 7.5 MW.
Contracted capacity of the facility (MW)	Up to 240 MW.
Length of blade	87.5 m
Dimensions of the turbine foundations	20X20X3m
Cabling	Underground up to 1m deep.
Substation Connection	Helios MTS.
Width of internal roads	Up to 10m during Construction Reduced to 6m during Operation.
Proximity of grid connection to Substation	Approximately 2 km to the Helios substation.
Laydown areas	Construction period laydown footprint (temporary): ± 6 ha Temporary hardstand area (boom erection, storage and assembly area): ± 15 ha.

Conditions of this Environmental Authorisation

Scope of authorisation

1. Preferred Layout Alternative 2 for the development of Botterblom Wind Energy Facility including all associated infrastructure located within Ward 5 of Hatam Local Municipality within the jurisdiction of Namakwa District Municipality in the Northern Cape Province is approved as per the geographic coordinates cited 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.

Notification of authorisation and right to appeal.

9. 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.
10. The notification referred to must –
 - 10.1. specify the date on which the authorisation was issued;
 - 10.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 10.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 10.4. give the reasons of the Competent Authority for the decision.

Commencement of the activity

11. 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

12. The site layout plans as attached as Appendix B of the EIAR dated December 2022 is not approved.
13. A copy of the final site layout map 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 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. The BESS, 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) for the facility submitted as part of the EIAr 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. Once approved the EMPr must be implemented and adhered to.
 15. The EMPr amendment must include the following:
 - 15.1. All recommendations and mitigation measures recorded in the EIAr and the specialist reports as included in the EIAr dated December 2022.
 - 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. Final layouts of auxiliary infrastructure and road designs must be approved by a qualified aquatic or wetland specialist. The approval by these specialists must be submitted together with the final layout map.
 17. The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
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18. Changes to the approved EMPr must be submitted in accordance to the EIA Regulations applicable at the time.
19. The Department reserves the right to amend the approved EMPr 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. 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

35. No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation.

Avifauna and bats

36. 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.
37. 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.
38. 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.
39. 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 powerline 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.
40. 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

41. Turbine 16 (Alternative 2) must be moved approximately 150m north across the main riparian tributary in order to significantly reduce potential impacts.
42. 50m buffers from the outer edge of the freshwater resource features on all small endorheic seepages and depressions with a High Ecological Importance must be implemented.
43. 100m buffers from the outer edge of the freshwater resource features on all larger interconnected wetland features with very ecological importance must be implemented.
44. The 'no-go' areas of the development property must be clearly demarcated and must be excluded from the final layout plan.
45. All watercourses and associated wetlands are regarded as sensitive. All developments within 500m of watercourses must comply with National Water Act.
46. 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.
47. A pre-construction survey of the final development footprint must be conducted by 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.
48. A mole specialist must be appointed to undertake a detailed survey to confirm the presence/absence of Golden moles and assist with micro-siting of the WEF and associated infrastructure and developing a plan to mitigate impacts if detected or favourable habitat is identified (such as relocation).
49. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
50. 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 EMPs.
51. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
52. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
53. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
54. 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).
55. Contractors and construction workers must be clearly informed of the no-go areas.
56. 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.

57. 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.
58. 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.
59. 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.
60. 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.
61. 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.
62. 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.
63. 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.
64. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
65. 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.
66. 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.
67. 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

68. 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.

69. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.
70. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
71. Signage must be erected at appropriate points warning of turning traffic and the construction site.
72. 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.
73. Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
74. Roads must be designed so that changes to surface water runoff are avoided, and erosion is not initiated.
75. All construction vehicles should adhere to a low-speed limit to avoid collisions with susceptible species such as snakes and tortoises.

Noise

76. 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.
77. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
78. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g., blasting is to take place.
79. Construction staff must be trained in actions to minimise noise impacts.

Visual resources

80. 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.
81. 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.
82. 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.
83. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
84. Commercial messages and graffiti on turbines are prohibited.

Human health and safety

85. 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.
86. Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
87. 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.
88. 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.
89. 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.
90. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
91. No unsupervised open fires for cooking or heating must be allowed on site.

Hazardous materials and waste management

92. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
93. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
94. 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.
95. 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.
96. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
97. 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.
98. Temporary bunds must be constructed around chemical storage to contain possible spills.
 99. Spill kits must be made available on-site for the clean-up of spills.
 100. 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).
 101. 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.
 102. 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.
 103. Excavation and blasting activities.
 104. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
 105. 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.
 106. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
 107. Anti-erosion measures such as silt fences must be installed in disturbed areas.

Air emissions

108. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
109. 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

110. 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.

111. 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.
112. All buffers and no-go areas stipulated in EIAr must be adhered to for both the facilities and all roads and power lines.
113. 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.
114. All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) should be kept out of the buffer zones.
115. The final layout should be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.

Turbine's position

116. The approved turbines must be placed in a manner to avoid all designated, "no-go" areas as well as its buffers.
117. 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.
118. Exclusion of sensitive ecological, heritage and paleontological areas from construction activities must inform micro siting of all development activities.

General

119. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 119.1. at the site of the authorised activity;
 - 119.2. to anyone on request and
 - 119.3. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.

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: 13/04/2023



Mr Sabelo Malaza

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

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 03 June 2022.
- b) The information contained in the EIAr dated December 2022.
- c) The comments received from South African Radio Astronomy Observatory (SARAO), Birdlife SA, SAHRA, Transnet, Department of Water and Sanitation, Northern Cape Department Agriculture, Environmental Affairs, Rural Development and Land Reform (DAEARD&LR), Civil Aviation Authority, South African Bat Assessment Association., and interested and affected parties as included in the EIAr dated December 2022.
- d) Mitigation measures as proposed in the EIAr and the EMPr.
- e) The information contained in the specialist studies contained within the appendices of the EIAr dated December 2022 and as appears below:

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 December 2022 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 December 2022 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 December 2022 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 December 2022 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.