



# 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: 14/12/16/3/3/2/682/2

Enquiries: Mr Jay-Jay Mpelane

Telephone: (012) 399 9404, E-mail: [Jmpelane@environment.gov.za](mailto:Jmpelane@environment.gov.za)

Mr Eugene Marais  
South Africa Mainstream Renewable Power Developments (Pty) Ltd  
P.O Box 45063  
CLAREMONT  
7735

Tel Number: +27 21 657 4045  
Cell number: +27 73 871 5781  
Email Address: [eugene.marais@mainstreamrp.com](mailto:eugene.marais@mainstreamrp.com)

## PER EMAIL / MAIL

Dear Mr Marais.

### **ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: FOR THE CONSTRUCTION OF A 140MW KORANA WIND ENERGY FACILITY ON PORTION 1 AND 2 OF THE FARM NAMIES SOUTH 212 AND PORTION 1 OF THE FARM POORTJIES 209 LOCATED NEAR POFADDER, WITHIN THE KHAI-MA LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE**

The Environmental Authorisation (EA) issued for the above-mentioned application by this Department on 28 May 2015, the EA amendment dated 06 June 2018 and subsequent amendments to the EA dated 02 March 2020, 27 October 2020, 11 June 2021 respectively as well as your application for amendment of the EA received on 11 August 2021 and the acknowledgement letter dated 17 August 2021, refers.

Based on a review of the reason for requesting an amendment to the above EA, this Department, in terms of Chapter 5, Regulation 27(2)(a) of the Environmental Impact Assessment Regulations, 2014, has decided to amend the EA dated 28 May 2015 as amended, by issuing a new EA.

**The attached EA will replace the EA dated 28 May 2015 as amended. All further amendments must be lodged on the attached EA.**

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 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.

MS

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@environment.gov.za](mailto:appeals@environment.gov.za),

By hand: Environment House  
473 Steve Biko Road  
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](https://www.environment.gov.za/documents/forms#legal_authorisations) or request a copy of the documents at [appeals@environment.gov.za](mailto:appeals@environment.gov.za).

Yours faithfully,



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

Date: 14/09/2021

<b>Cc:</b>	Mr Obakeng J Isaacs	Khai-Ma Local Municipality	Email: <a href="mailto:mmsecretary@khaima.gov.za">mmsecretary@khaima.gov.za</a>
	Mmakoena Mmola	Savannah Environmental (Pty) Ltd	Email: <a href="mailto:Mmakoena@savannahsa.com">Mmakoena@savannahsa.com</a>



## forestry, fisheries & the environment

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

# Environmental Authorisation

In terms of Regulation 27(2)(a) of the Environmental Impact Assessment Regulations, 2014, as amended

**CONSTRUCTION OF A 140MW KORANA WIND ENERGY FACILITY ON PORTION 1 AND 2 OF THE FARM NAMIES SOUTH 212 AND PORTION 1 OF THE FARM POORTJIES 209 LOCATED NEAR POFADDER, WITHIN THE KHAI-MA LOCAL MUNICIPALITY IN THE NORTHERN CAPE**

### NAMAKWA DISTRICT MUNICIPALITY

<b>Authorisation register number:</b>	<i>14/12/16/3/3/2/682/2</i>
<b>Last amended:</b>	<i>Splitting and Re-Issue First Issue: 28 May 2015</i>
<b>Holder of authorisation:</b>	<i>South Africa Mainstream Renewable Power Developments (Pty) Ltd</i>
<b>Location of activity:</b>	<i>Portion 1 and 2 of the Farm Namies south 212 and Portion 1 of the Farm Poortjies 209 located near Pofadder, within the Khai-Ma Local Municipality in the Northern Cape</i>

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.

M.S

## 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 –

### **SOUTH AFRICA MAINSTREAM RENEWABLE POWER DEVELOPMENTS (PTY) LTD**

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

with the following contact details –

Mr Eugene Marais

South Africa Mainstream Renewable Power Developments (Pty) Ltd

P.O Box 45063

**CLAREMONT**

7735

Tel Number: +27 21 657 4045

Cell number: +27 73 871 5781

Email Address: [eugene.marais@mainstreamrp.com](mailto:eugene.marais@mainstreamrp.com)

- to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 (GN R544, 545, and 546) of the EIA Regulations, 2014 as amended:

Listed activities	Activity/Project description
<p><b><u>GN R. 544 Activity 10:</u></b></p> <p>The construction of facilities or infrastructure for the transmission and distribution of electricity-</p> <p>(i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275kV.</p>	<p>Cabling between the project components, to be laid underground where practical. Overhead power line of 132kV to connect the on-site substation to the existing Eskom Aggeneys-Aries 400kV power line which traverses the site.</p>
<p><b><u>GN R. 544 Activity 11:</u></b></p> <p>The construction of:</p> <p>(iii) Bridges;</p> <p>(x) Buildings exceeding 50 square metres in size; or</p> <p>(xi) Infrastructure or structures covering 50 square metres or more.</p> <p>(a) where such construction occurs within a watercourse or within 32 metres of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>The wind energy facility will include the construction of bridges, buildings and substations to facilitate the grid connection to the existing power line, some of this infrastructure may fall within 32m of a watercourse.</p>
<p><b><u>GN R. 544 Activity 18:</u></b></p> <p>The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand shells, shell grit, pebbles or rock of more than 5 cubic metres from:</p> <p>(i) a watercourse.</p>	<p>The construction of the wind energy facility will include the infilling or excavation of 5 cubic metres or more of soil from the watercourse.</p>
<p><b><u>GN R. 544 Activity 22:</u></b></p> <p>The construction of a road, outside urban areas,</p> <p>(ii). Where no road reserve exists where the road is wider than 8 metres.</p>	<p>The wind energy facility will require access roads to be constructed where no road reserve exists where the road is wider than 6 metres.</p>
<p><b><u>GN R. 544 Activity 39:</u></b></p> <p>The expansion of</p> <p>(ii) bridges</p>	<p>Existing bridges requires to be expanded/widened.</p>

Listed activities	Activity/Project description
<p>Within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased development footprint.</p>	
<p><b><u>GN R. 544 Activity 47:</u></b>                      The widening of a road by more than 8 metres, or the lengthening of a road by more than 1 kilometre-                      (ii) where no road reserve exists, where the existing road is wider than 8 metres</p>	<p>Existing farm (gravel) access roads of up to 50km in length may be widened or lengthened.</p>
<p><b><u>GN R. 545 Activity 1:</u></b>                      The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more.</p>	<p>The wind energy facility will consist of wind turbines for electricity generation of not more than 140MW. Power line and substations are ancillary infrastructure for this energy generation process.</p>
<p><b><u>GN R. 545 Activity 15:</u></b>                      Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 ha or more</p>	<p>The site for the wind energy facility is will be transformed to an electricity generation facility on an area greater than 20 hectares.</p>
<p><b><u>GN R. 546 Activity 14:</u></b>                      The clearance of an area of 5 ha or more vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation,                      (a) In the Northern Cape:                      (i). All areas outside urban areas.</p>	<p>The construction of the facility will require the clearance of indigenous Bushmanland Arid Grassland. The site is located in a rural area in the Northern Cape with an overall low botanical sensitivity. The total area to be cleared will be greater than 70 hectares. So, it is likely that clearance of more than 5 hectares of indigenous vegetation will be required.</p>

as described in the Environmental Impact Assessment Report (EIAR) dated February 2015 at:

Project site co-ordinates	Latitude	Longitude
Portion 1 and 2 of the Farm Namies South 212 and portion 1 of Farm Poortje 209 near Pofadder	29° 21' 25.23" S	23° 18' 30.67" E
Substation co-ordinates	Latitude	Longitude
Substation 1	29° 21' 49.04" S	19° 15' 58.84" E
Access road co-ordinates (Namies South)	Latitude	Longitude
Start-point	29° 14.804' S	18° 53.551' E
Mid-point	29° 17.158' S	19° 5.799' E
End-Point	29° 22.139' S	19° 13.918' E

**SG 21 Code:**

- C0360000000020900001
- C0360000000021200001
- C0360000000021200002

- for the construction of a 140mw Korana Wind Energy Facility (with a maximum of 42 turbines) on portion 1 and 2 of the Farm Namies south 212 and portion 1 of the Farm Poortjes 209 located near Pofadder, within the Khai-Ma Local Municipality in the Northern Cape Province, hereafter referred to as "the property.

The infrastructure associated with this facility includes:

- The site will accommodate up to a maximum of 42 wind turbines. The facility would be operated as a single facility; each turbine will have a generating capacity ranging between 1.5 – 4MW. The capacity of the facility will be up to 140MW.
- Each wind turbine is expected to consist of a concrete foundation (30m x 30m x 4m), a tower, a hub (up to 200m above ground level) and three blades (with a rotor diameter of up to 200m).
- Permanent internal access roads (up to 8m in width and including turning circles where required) linking the wind turbines and other infrastructure on the site. Existing farm roads will be utilised, widened and upgraded where possible.
- Workshop area/office for control, maintenance and storage (approximately 100m x 100m).
- An on-site 132kV Independent Power Producer (IPP) substation (353.5534m x 353.5534m) to facilitate the grid connection (Alternative 1 position).

- A Battery Energy Storage System (BESS) with a footprint of up to approximately 2.8ha, within the authorised footprint of the on-site substation.

## Conditions of this Environmental Authorisation

### Scope of authorisation

1. The construction of a 140MW Korana Wind Energy Facility (with a maximum of 42 turbines) on Portion 1 and 2 of the Farm Namies South 212 and Portion 1 of the Farm Poortjies 209 located near Pofadder, within the Khai-Ma Local Municipality in the Northern Cape Province using preferred substation (353.5534m x 353.5534m) Alternative 1 and access route Alternative 2 located at Poortjies South is authorised as per the geographic coordinates.
2. Authorisation of the activity is subject to the conditions contained in this 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 servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised must only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this 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 authorisation in terms of the regulations.
6. The Department is aware that the environment changes constantly, as a result it might be significantly different from the one that existed at the time of the issuing of the original EA on 28 May 2015, hence the validity of the EA cannot exceed a maximum period of 10 years. Failure to commence with construction activities within the maximum 10-year period, your EA will be deemed to have lapsed and a new application for EA will have to be lodged.
7. Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.
8. The holder of an environmental authorisation must apply for an amendment of 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.



### **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. A copy of the final development layout map must be made available for comments by registered Interested and Affected Parties and the holder of the 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:
  - 12.1. Cable routes and trench dimensions (where they are not along internal roads);
  - 12.2. Position of wind turbines and associated infrastructure;
  - 12.3. Foundation footprint;

- 12.4. Internal roads indicating width;
  - 12.5. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
  - 12.6. All sensitive features e.g. heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
  - 12.7. Substation(s) inverters and/or transformer(s) sites including their entire footprint;
  - 12.8. Connection routes (including pylon positions) to the distribution/transmission network;
  - 12.9. All existing infrastructure on the site, especially roads;
  - 12.10. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
  - 12.11. Temporary construction laydown areas;
  - 12.12. Borrow pits;
  - 12.13. Buildings, including accommodation; and,
  - 12.14. All "no-go" and buffer areas.; and
  - 12.15. A map combining the final layout plan superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of turbines as stated in the EIR dated February 2015 and this authorisation.
13. Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shape file must be submitted in a zip file using the EIA application reference number as the title.

The shape file must be submitted to:

**Postal Address:**

Department of Environmental Affairs  
Private Bag X447  
Pretoria  
0001

**Physical address:**

Department of Environmental Affairs  
Environment House  
473 Steve Biko Road  
Pretoria  
0083

For Attention: Mr Muhammad Essop  
Integrated Environmental Authorisations  
Strategic Infrastructure Developments  
Telephone Number: (012) 399 9406  
Email Address: [MEssop@environment.gov.za](mailto:MEssop@environment.gov.za)

14. The Environmental Management Programme (EMPr), which included the Appendices of the EMPr (Appendix A-I) submitted as part of the application for environmental authorisation must be amended and submitted with the abovementioned final development layout plan 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 EIR and specialist studies dated February 2015.
  - 15.2. The requirements and conditions of this authorisation.
  - 15.3. An effective monitoring system to detect any leakage or spillage of all 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 environmental 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. The final amended EMPr (once approved) 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.

17. Changes to the EMPr must be submitted to this Department for approval before such changes could be effected.

#### **Frequency and process of updating the EMPr**

18. The EMPr must be updated wherever the findings of the environmental audit reports, contemplated in Condition 24 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.
19. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
20. 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.
21. 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.
22. 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**

23. 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.
  - 23.1. The ECO must be appointed before commencement of any authorised activities.

*M.S*

- 23.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 23.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 23.4. 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**

24. 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.
25. 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.
26. 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.
27. 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.
28. 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.
29. 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**

30. 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**

31. 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**

32. 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**

33. The results of the pre-construction bird monitoring programme must inform the final layout and the construction schedule of the facility.
34. A construction phase monitoring plan must survey bird communities on the Wind Energy Facility and must be implemented to monitor impacts resulting from the Infrastructure installations. This monitoring plan must be implemented for the duration of the construction phase.
35. Bird and bat monitoring must be undertaken by an accredited monitor and/or specialist and must be done 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 and the SABAAP best practice guidelines.
36. A bird and bat monitoring programme must be implemented to document the effect of the operation of the facility on avifauna and bats. This should commence prior to construction, and continue during operation of the facility.
37. The facility must be designed to discourage the use of infrastructure components as perching or roosting substrates by birds and bats.

38. During construction the holder of the authorisation must restrict construction activities to the development footprint area. No access to the remainder of the property is allowed.
39. 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 fitting of anti-collision devices. These devices must be according to Eskom's Transmission and EWT's Guidelines.
40. A pre-construction walk-through on the selected power line alignment by a bat specialist, avifaunal specialist and ecologist, must be conducted to ensure that; micro-siting of the turbines has 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.
41. Monitoring must be implemented in accordance with the most recent version of the BirdLife South Africa / Endangered Wildlife Trust: Best Practice Guidelines for Avian Monitoring and Impact Mitigation at proposed Wind Energy Development Sites in southern Africa.
42. Operational-phase monitoring must use a similar methodology as pre-construction monitoring to ensure comparability of results, but must also include the collection of mortality data.
43. Operational-phase monitoring must start as soon as the turbines are operational and must also include surveys of power lines for mortalities.
44. BirdLife South Africa and Endangered Wildlife Trust must be given the opportunity to review and approve the methodology and the approved methodology must be submitted to this Department for record keeping.
45. Avifaunal monitoring reports, as well as the raw monitoring data must be submitted to the relevant provincial environmental department, Birdlife South Africa, the Endangered Wildlife Trust (EWT), and this Department on a quarterly basis. The report will assist all stakeholders in identifying potential and additional mitigation measures and to establish protocols for a bird monitoring programme for wind energy development in the country.
46. The baseline data collected and documented during the survey must be shared with the EWT, Department of Environment and Nature Conservation and Birdlife South Africa for a better understanding of the distribution or breeding behaviour of any of the priority species.
47. Should the results of the operational-phase monitoring need additional mitigation measures, the EMPr must be amended and submitted to the provincial environmental department, Birdlife South Africa and the Endangered Wildlife Trust (EWT) for comments, as well as to this Department for approval

48. The EMPr must be reviewed annually and BirdLife South Africa, EWT, the provincial environmental department and this Department must be given the opportunity to comment on the bird monitoring specifications every year for as long as post construction monitoring continues.
49. Habitat destruction must be kept to an absolute minimum by keeping the lay-down areas as small as possible, reducing the number and size/length for roads and reducing the final extent of the developed area.
50. Anti-collision devices such as bird flappers must be installed where power lines cross avifaunal corridors. 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.
51. The holder of the authorisation must ensure that lighting on the turbines is kept to a minimum and is coloured (red or green) and intermittent, rather than permanent and white, to reduce confusion effects for nocturnal migrants.
52. The facility must be designed to discourage the use of infrastructure components as perching or roosting substrates by birds and bats.

Vegetation, wetlands and water resources

53. All species of special concern (SSC) must be identified and every effort must be made to rescue them.
54. Vegetation clearing must be limited to the required footprint. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species.
55. The holder of the authorisation must ensure that the continuous monitoring and removal of alien plant species is undertaken. An alien removal program must be developed and implemented.
56. Construction activities must be restricted to demarcated areas to restrict impact on vegetation, birds and animals.
57. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities must be undertaken as early as possible on disturbed areas.
58. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
59. The holder of the authorisation is required to inform the relevant provincial department and/or this Department should the removal of protected species, medicinal plants and "data deficient" plant species be required.
60. All hard infrastructure must be located within existing areas of low sensitivity, as far as possible.
61. All turbines must be located at least 100m from the edge of any highly sensitive areas.
62. No exotic plants must be used for rehabilitation purposes; only indigenous plants of the area must be utilised.



63. No activities, which require a water use license, will be allowed to encroach into a water resource without a water use license being in place from the Department of Water and Sanitation.
64. Erosion mitigation must be implemented to prevent any potential erosion.
65. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
66. 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 No.43 of 1983).
67. The holder of the authorisation must ensure that all the "No-go" areas are clearly demarcated (using fencing and signage) before construction commences.
68. Contractors and construction workers must be clearly informed of the no-go areas.
69. Siting of turbines must be more than 500m from large water bodies, riparian vegetation and rocky crevices, if and where high bat occurrence is found after monitoring.
70. Where roads pass right next to major water bodies provision should be made for fauna such as toads to pass under the roads by using culverts or similar.
71. Bridge design must be such that it minimises impact on the riparian areas with minimal alterations to water flow and must be permeable to movement of fauna and flora.

#### Roads and transportation

72. Existing road infrastructure must be used as far as possible for providing access to the turbine positions. Where no road infrastructure exists, new roads must be placed within existing disturbed areas or environmental conditions must be taken into account to ensure the minimum amount of damage is caused to natural habitats.
73. A transportation plan must be developed, particularly for the transport of turbines, main assembly cranes and other large equipment. A permit must be obtained from the relevant transport department for the transportation of all components (abnormal loads) to the sites.
74. 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 times.
75. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
76. Internal access roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.
77. Existing drainage must not be altered, especially in sensitive areas.
78. A designated access to the site must be created and clearly marked to ensure safe entry and exit.

79. Signage must be erected at appropriate points warning of turning traffic and the construction site.
80. Construction vehicles carrying materials to the site must avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
81. Road borders must be maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.

#### Noise

82. The holder of this authorisation must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and measures to limit noise from the work site are implemented.
83. Both NSD01 and NSD03 must be determined before commencement of the development of the facility. The results must inform the EMP.
84. Quarterly noise measurements must be conducted during the operational phase over a 24-hour period when the wind turbines are operational.
85. A complaints register to record noise complaints must be kept onsite and made available to affected parties.
86. The holder of this authorisation must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA wear ear protection equipment.
87. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
88. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
89. All wind turbines must be located at a setback distance of 500m from any homestead and a day/night noise criteria level at the nearest residents of 45dB(A) should be used to locate the turbines. The 500m setback distance can be relaxed if local factors; such as high ground between the noise source and the receiver, indicates that a noise disturbance will not occur.
90. Positions of turbines jeopardizing compliance with accepted noise levels must 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).

#### Visual resources

91. 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 its original (prior to disturbance) contour and vegetation.

92. 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.
93. Lighting of main structures (turbines) and ancillary buildings must be designed to minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.
94. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
95. Commercial messages and graffiti on turbines must be avoided.
96. Lay down areas and stockyards must be located in low visibility areas (e.g. valleys or between ridges) and existing vegetation must be used to screen them from view where possible.
97. Night lighting of the construction sites must be minimised to the minimum requirements for safety and efficiency.

#### Human health and safety

98. A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the 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.
99. Potential interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
100. The holder of this authorisation must ensure that the operation of the facility complies with the relevant communication regulations or guidelines relating to electromagnetic interference, e.g. microwave, radio and television transmissions.
101. The holder of this authorisation must obtain approval from the South African Civil Aviation Authority that the 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.
102. The holder of this authorisation must obtain approval from the South Africa Weather Services (Weather-SA) that the 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.
103. 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.
104. Liaison with land owner's/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.

105. No unsupervised open fires for cooking or heating must be allowed on site.
106. Hazardous materials and waste management
107. The Batching plant must preferably be located within laydown areas outside sensitive ecological, heritage and paleontological areas.
108. Areas around fuel tanks must be bunded or contained as per the requirements of SABS 089:1999 Part 1.
109. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
110. 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.
111. No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and this must all be located within areas of low environmental sensitivity.
112. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
113. Hazardous and flammable substances must be stored and used in compliance with 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.
114. Temporary bunds must be constructed around chemical storage areas to contain possible spills.
115. Spill kits must be made available on-site for the clean-up of spills.
116. 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 No.59 of 2008).
117. 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 and the associated waste must be disposed of at a registered waste disposal site.
118. 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, 2010.

Excavation and blasting activities

119. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
120. Cabling routes outside internal access routes must be approved by this Department.

121. 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.
122. Borrow material must be obtained only from authorized or permitted sites. Permits must be kept on site by the ECO.
123. Anti-erosion measures such as silt fences must be installed in disturbed areas.

#### Air emissions

124. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
125. 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

126. If there are any changes to the layout of the turbines, then additional survey work will be required in order to ensure that no sites are directly impacted and/or to identify the need for an excavation permit.
127. Should any graves be found, all construction activities must be suspended and an archaeologist be contacted immediately. The discovered graves must be cordoned off.

#### Storm water management

128. Construction must include design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.

#### Turbines positions

129. Turbines must be positioned in such a way that shadow flicker does not affect any farm buildings.
130. The 1.5km turbine-free buffer zone around the Martial Eagle nest on Tower 147 of the Aries-Aggeneys 400kV 1 transmission line must be converted to a 4.5km turbine-free zone.
131. The number of turbines beyond the 4.5km turbine-free zone, up to a radius of 6km from the nest, must be restricted to no more than 13.
132. As an absolute minimum, post-construction monitoring must be undertaken for the first three years of operation, and then repeated again in year 5, and again every five years thereafter. The exact scope and

nature of the post-construction monitoring must be informed on an ongoing basis by the result of the monitoring through a process of adaptive management.

133. All turbines must be feathered below cut in speed and not allow for freewheeling during construction and from the start of operation.

**General**

134. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-

- a. at the site of the authorised activity;
- b. to anyone on request; and
- c. where the holder of the Environmental Authorisation has a website, on such publicly accessible website.

135. 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: 14/09/2021



**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 information contained in the EIR dated February 2015;
- b) The comments received from organs of state and interested and affected parties as included in the EIR dated February 2015;
- c) Mitigation measures as proposed in the EIR dated February 2015 and the EMP;
- d) The information contained in the specialist studies contained within Appendix D of the EIR;
- e) Findings of the site visit conducted on 06 May 2015; and
- f) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

### 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 approved project stems from the need for clean and renewable energy sources to reduce the country's energy supply problems.
- c) The EIR dated February 2015 identified all legislation and guidelines that have been considered in the preparation of the EIR dated February 2015.
- d) The methodology used in assessing the potential impacts identified in the EIR dated February 2015 and the specialist studies has been adequately indicated.
- e) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2010 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 is detailed in the EIR dated February 2015 and sufficient assessment of the key identified issues and impacts has been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) The EAP has indicated that the information contained in the EIR dated February 2015 is accurate and credible.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIR and will be implemented to manage the identified environmental impacts during the construction process.

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, 1996 and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.