



## **environmental affairs**

Department:  
Environmental Affairs  
**REPUBLIC OF SOUTH AFRICA**

Private Bag X 447 · PRETORIA · 0001 · Environment House · 473 Steve Biko Road, Arcadia, PRETORIA  
Tel (+ 27 12) 399 9372

**DEA Reference: 14/12/16/3/3/2/856**

**Enquiries: Ms Thabile Sangweni**

**Telephone: (012) 399 9409 E-mail: TSangweni@environment.gov.za**

Mr Richard Gordon  
Komsberg Wind Farms (Pty) Ltd  
PO Box 23101  
**CLAREMONT**  
7735

Telephone Number: (021) 670 1408  
Email Address: Richard.Gordon@aiimafrika.com

### **PER E-MAIL / MAIL**

Dear Mr Gordon

### **APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 983/984/985 FOR THE 275 MW KOMSBERG WEST WIND ENERGY FACILITY NEAR SUTHERLAND WITHIN THE KAROO HOOGLAND AND LAINGSBURG LOCAL MUNICIPALITIES IN THE NORTHERN AND WESTERN CAPE PROVINCES**

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.

The following activity which was applied for is not authorised as part of this application as it was not assessed:

- GN R 985 Activity 10 (a)(ii)(ee)(g)(i).

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

Your attention is drawn to Chapter 2 of Government Notice No. R.993, which prescribes the appeal procedure to be followed. An appellant must submit an 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.

By post: Private Bag X447,  
Pretoria, 0001; or  
By hand: Environment House  
473 Steve Biko,  
Arcadia,  
Pretoria, 0083

*M.S.*

If the applicant wishes to lodge an appeal, it must also serve a copy of the notice of intention to appeal on all registered interested and affected parties as well as a notice indicating where, and for what period, the appeal submission will be available for inspection, should you intend to submit an appeal.

**Appeals must be submitted in writing to:**

Mr Z Hassam, Director: Appeals and Legal Review, of this Department at the above mentioned addresses. Mr Hassam can also be contacted at:

Tel: (012) 399 9356

Email: Appealsdirector@environment.gov.za

Please note that in terms of section 43(7) of the National Environmental Management Act, 1998, an appeal under section 43 of that Act 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.

For guidance on appeals submitted to the Minister in terms of NEMA and the SEMAs, please find a copy of the guideline on the administration of appeals on the Department's website:  
([https://www.environment.gov.za/documents/forms#legal\\_authorisations](https://www.environment.gov.za/documents/forms#legal_authorisations)).

Kindly include a copy of this document with the letter of notification to interested and affected parties.

Yours faithfully



**Mr Sabelo Malaza**  
**Chief Director: Integrated Environmental Authorisations**  
**Department of Environmental Affairs**

Date: 08/09/2012

cc: A Bodasing	Arcus Consultancy Services Ltd	Email: ashlinb@arcusconsulting.co.za
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## environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

# Environmental Authorisation

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

The 275 MW Komsberg West Wind Energy Facility and its associated infrastructure near Sutherland within the Laingsburg and Karoo Hoogland Local Municipalities in the Northern and Western Cape Provinces

### Central Karoo District and Namakwa District Municipalities

<b>Authorisation register number:</b>	<i>14/12/16/3/3/2/856</i>
<b>Last amended:</b>	<i>First issue</i>
<b>Holder of authorisation:</b>	<i>Komsberg Wind Farms (Pty) Ltd</i>
<b>Location of activity:</b>	<i>Portion 1 of De Plaat 205; Portion 2 of Schalkwykskraal 204; Portion 0 of VlakKloof 11; Portion 1 of Weldemoed 268; Portion 2 of Weldemoed 268; Portion 2 of Taayboschkraal 12; Laingsburg Local Municipality; Karoo Hoogland Local Municipality; Central Karoo District Municipality; Namakwa District Municipality; Western Cape Province; Northern Cape Province</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.

## 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, 1998 and the EIA regulations.

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, 1998 (Act No.107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

### **KOMBERG WIND FARMS (PTY) LTD**

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

with the following contact details –

Mr Richard Gordon

PO Box 23101

**CLAREMONT**

7735

Telephone Number: (021) 670 1408

Cell phone Number: (082) 564 5664

Fax Number: (021) 670 1470

Email Address: Richard.Gordon@aiimafrica.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 R. 983, 984 and 985):

Activity number	Activity description
<p><u>GN R. 983 Item 11:</u></p> <p><i>"The development of facilities or infrastructure for the transmission and distribution of electricity –</i></p> <p><i>(i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kV."</i></p>	<p>The WEF will require transmission lines in order to connect to the grid. Electrical reticulation will be installed to transfer electricity from the turbines to an onsite substation. Cables will be installed underground where feasible.</p>
<p><u>GN R. 983 Item 12:</u></p> <p><i>"The development of –</i></p> <p><i>(iii) Bridges exceeding 100 square metres in size;</i></p> <p><i>(x) Buildings exceeding 100 square metres in size;</i></p> <p><i>(xii) Infrastructures or structures with a physical footprint of 100 square metres or more;</i></p> <p><i>Where such development occurs –</i></p> <p><i>(a) Within a watercourse;</i></p> <p><i>(b) In front of a development setback; or</i></p> <p><i>(c) If no development setback exists, within 32 metres of a watercourse measured from the edge of a watercourse."</i></p>	<ul style="list-style-type: none"> <li>- The proposed WEF may include construction of buildings and infrastructure within 32m of a watercourse.</li> <li>- Bridges may be required to cross watercourses for access tracks.</li> <li>- The footprint of the turbines and associated infrastructure may exceed 100m<sup>2</sup> in total.</li> <li>- The footprint of the buildings will be at least 400m<sup>2</sup></li> </ul>
<p><u>GN R. 983 Item 19:</u></p> <p><i>"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 –</i></p> <p><i>(i) a watercourse;</i></p> <p><i>but excluding where such infilling, depositing, dredging, excavation, removal or moving –</i></p> <p><i>(a) will occur behind a development setback;</i></p>	<ul style="list-style-type: none"> <li>- The construction of the WEF would likely include the excavation of soil in watercourses or drainage line areas, and infilling/deposition may exceed 5 cubic metres.</li> <li>- The construction of associated infrastructure such as access tracks crossing watercourses would require excavation and/or infilling of watercourse areas.</li> </ul>

<p>(b) <i>is for maintenance purposes undertaken in accordance with a maintenance management plan; or</i></p> <p>(c) <i>falls within the ambit of Activity 21 in this Notice, in which case that activity applies."</i></p>	
<p><u>GN R. 983 Item 24:</u></p> <p><i>"The development of –</i></p> <p>(ii) <i>a road with a reserve wider than 13,5 metres, or where no reserve exists where the road is wider than 8 metres;</i></p> <p><i>but excluding –</i></p> <p>(a) <i>roads which are identified and included in activity 27 in Listing Notice 2 of 2014; or</i></p> <p>(b) <i>roads where the entire road falls within an urban area."</i></p>	<p>Access tracks will be required between turbines. These tracks will be unsealed and will likely be between 3-8 m in width. The tracks will be up to 20m wide during construction, but will be reduced to 3-4m during operation.</p>
<p><u>GN R. 983 Item 27:</u></p> <p><i>"The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for –</i></p> <p>(i) <i>the undertaking of a linear activity; or</i></p> <p>(ii) <i>maintenance purposes undertaken in accordance with a maintenance management plan."</i></p>	<p>The infrastructure and building area of the proposed WEF will require clearing of at least 1 hectare of indigenous vegetation in total.</p>
<p><u>GN R. 983 Item 48:</u></p> <p><i>"The expansion of –</i></p> <p>(iii) <i>bridges where the bridge is expanded by 100 square metres or more in size</i></p> <p><i>where such expansion or expansion and related operation occurs –</i></p> <p>(a) <i>within a watercourse."</i></p>	<p>Existing bridges over watercourses may need to be expanded or widened.</p>
<p><u>GN R. 983 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 km-</i></p>	<p>Existing farm access roads may need to be widened or lengthened. These roads would currently have no</p>

<p>(i) <i>where the existing reserve is wider than 13,5 metres; or</i></p> <p>(ii) <i>where no reserve exists where the existing road is wider than 8 metres; excluding where widening or lengthening occur inside urban areas."</i></p>	<p>road reserve and may be wider than 8 metres in some areas.</p>
<p><u>GN R. 984 Item 1:</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, excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs within an urban area."</i></p>	<p>The WEF will consist of a number of wind turbines for electricity generation of more than 20 MW.</p>
<p><u>GN R. 984 Item 6:</u></p> <p><i>"The development of facilities or infrastructure for any process or activity which requires a permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding –</i></p> <p>(i) <i>activities which are identified and included in Listing Notice 1 of 2014;</i></p> <p>(ii) <i>the development of facilities or infrastructure for the treatment of effluent, wastewater or sewage where such facilities have a daily throughput capacity of 2000 cubic metres or less."</i></p>	<p>The construction of the WEF may require a Water Use License in terms of the National Water Act, 1998 (Act No. 36 of 1998).</p>
<p><u>GN R. 984 Item 15:</u></p> <p><i>"The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for –</i></p> <p>(i) <i>The undertaking of a linear activity; or</i></p> <p>(ii) <i>Maintenance purposes undertaken in</i></p>	<p>The construction of the WEF may require the clearance of more than 20 hectares of vegetation in total across the site.</p>

<p><i>accordance with a maintenance management plan."</i></p>	
<p><u>GN R. 985 Item 4:</u>  <i>"The development of a road wider than 4m with a reserve less than 13, 5 metres.</i></p> <p><i>(a) In Northern Cape:</i></p> <p><i>ii. Areas outside urban areas;</i></p> <p><i>(aa) A protected area identified in terms of NEMPAA, excluding disturbed areas;</i></p> <p><i>(bb) National Protected area Expansion Strategy Focus areas;</i></p> <p><i>(cc) Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</i></p> <p><i>(dd) Sites or areas identified in terms in terms of an International Convention;</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>(ff) Core areas in biosphere reserves;</i></p> <p><i>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas;</i></p> <p><i>(f) In Western Cape:</i></p> <p><i>i. Areas outside urban areas;</i></p> <p><i>(aa) Areas containing indigenous vegetation."</i></p>	<p>Internal and external access roads will be constructed which are wider than 4m. The site falls outside of an urban area and parts of the site fall within CBAs.</p>
<p><u>GN R. 985 Item 12:</u>  <i>"The clearance of an area of 300 square metres or more of indigenous vegetation where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance</i></p>	<p>The proposed development will require the clearance of natural vegetation in excess of 300m<sup>2</sup> in areas of natural vegetation. Parts of the site fall within CBAs.</p>



<p><i>with a maintenance management plan.</i></p> <p><i>(a) <u>In Western Cape:</u></i></p> <p><i>ii. Within critical biodiversity areas identified in bioregional plans;</i></p> <p><i>(d) <u>In Northern Cape:</u></i></p> <p><i>ii. Within critical biodiversity areas identified in bioregional plans; or."</i></p>	
<p><u>GN R. 985 Item 14:</u></p> <p><i>"The development of –</i></p> <p><i>(iii) Bridges exceeding 10 square metres in size;</i></p> <p><i>(x) Buildings exceeding 10 square metres in size;</i></p> <p><i>(xi) Infrastructure or structures with a physical footprint of 10 square metres or more</i></p> <p><i>Where such development occurs-</i></p> <p><i>(a) Within a watercourse;</i></p> <p><i>(c) If no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse;</i></p> <p><i>(a) <u>In Northern Cape:</u></i></p> <p><i>ii. Outside urban areas, in:</i></p> <p><i>(aa) A protected area identified in terms of NEMPAA, excluding conservancies;</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(cc) World Heritage Sites;</i></p> <p><i>(dd) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority;</i></p> <p><i>(ee) Sites or areas listed in terms of an International Convention;</i></p> <p><i>(ff) Critical biodiversity areas or ecosystem</i></p>	<p>Bridges and infrastructure may be constructed within 32m of watercourses. The site lies outside of an urban area, and parts of the site fall within CBAs.</p>

<p><i>service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;</i></p> <p><i>(gg) Core areas in biosphere reserves;</i></p> <p><i>(hh) areas within 10km from national parks or world heritage sites or 5km from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;</i></p> <p><b>(f) <u>In Western Cape:</u></b></p> <p><i>i. Outside urban areas, in:</i></p> <p><i>(aa) A protected area identified in terms of NEMPAA, excluding conservancies;</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(cc) World Heritage Sites;</i></p> <p><i>(dd) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority;</i></p> <p><i>(ee) Sites or areas listed in terms of an International Convention;</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><i>(gg) Core areas in biosphere reserves.”</i></p>	
<p><b><u>GN R. 985 Item 18:</u></b></p> <p><i>“The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 km.</i></p> <p><b>(a) <u>In Northern Cape:</u></b></p> <p><i>i. Outside urban areas, in:</i></p> <p><i>(aa) A protected area identified in terms of NEMPAA, excluding conservancies;</i></p> <p><i>(bb) National Protected Area Expansion</i></p>	<p>Existing farm roads may need to be widened or lengthened. The site lies outside urban areas, and contains indigenous vegetation.</p>

<p><i>Strategy Focus Areas;</i></p> <p><i>(cc) World Heritage Sites;</i></p> <p><i>(dd) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority;</i></p> <p><i>(ee) Sites or areas listed in terms of an international convention;</i></p> <p><i>(ff) Core areas in biosphere reserves;</i></p> <p><i>(gg) Areas within 10km from national parks or world heritage sites or 5km from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;</i></p> <p><i>(ii) Areas on the watercourse side of the development setback line or within 100 metres from the edge of a watercourse where no such setback line has been determined;</i></p> <p><i>(f) <u>In Western Cape:</u></i></p> <p><i>i. all areas outside urban areas:</i></p> <p><i>(aa) Areas containing indigenous vegetation;</i></p> <p><i>(bb) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined."</i></p>	
<p><u>GN R. 985 Item 23:</u></p> <p><i>"The expansion of-</i></p> <p><i>(iii) Bridges where the bridge is expanded by 10 square metres or more in size;</i></p> <p><i>(x) Buildings where the building is expanded by 10 square metres or more in size;</i></p> <p><i>(xii) Infrastructure or structures where the physical footprint is expanded by 10 square metres or more; where such development occurs –</i></p> <p><i>(a) Within a watercourse;</i></p>	<p>The construction of the WEF may include the expansion of existing bridges over watercourses. The site lies outside of any urban area, and CBAs are present on site.</p>

(b) *In front of a development setback adopted in the prescribed manner; or*

(c) *If no development setback has been adopted, within 32m of a watercourse, measured from the edge of a watercourse;*

*Excluding where the expansion or infrastructure or structures within existing ports of harbours that will not increase the development footprint of the port or harbour.*

(a) *In Northern Cape:*

*i. Outside urban areas, in:*

*(aa) A protected area identified in terms of NEMPAA, excluding conservancies;*

*(bb) National Protected Area Expansion Strategy Focus area;*

*(cc) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority;*

*(dd) Sites or areas listed in terms of an International Convention;*

*(ee) Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans;*

*(ff) Core areas in biosphere reserves; or*

*(gg) Areas within 10km from national parks or world heritage sites or 5km from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve.*

(g) *In Western Cape:*

*i. Outside urban areas, in:*

*(aa) A protected area identified in terms of NEMPAA, excluding conservancies;*

<p><i>(bb) National Protected Area Expansion Strategy Focus Areas;</i></p> <p><i>(cc) World Heritage Sites;</i></p> <p><i>(dd) Sensitive areas as identified in an environmental management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority;</i></p> <p><i>(ee) Sites or areas listed in terms of an international convention;</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><i>(gg) Core areas in biosphere reserves;</i></p> <p><i>(hh) Areas on the estuary side of the development setback line or in an estuarine functional zone where no such setback line has been determined.</i></p>	
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as described in the Environmental Impact Assessment Report (EIAR) dated May 2016 at:

**21 SG Codes:**

C	0	7	2	0	0	0	0	0	0	0	0	0	2	0	5	0	0	0	0	1
C	0	7	2	0	0	0	0	0	0	0	0	0	2	0	4	0	0	0	0	2
C	0	4	3	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
C	0	4	3	0	0	0	0	0	0	0	0	0	2	6	8	0	0	0	0	3
C	0	4	3	0	0	0	0	0	0	0	0	0	2	6	8	0	0	0	0	4
C	0	4	3	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	2

- for the Komsberg West Wind Energy Facility (up to 275 MW maximum capacity) and its associated infrastructure near Sutherland within the Laingsburg Local Municipality, which falls under the jurisdiction of the Central Karoo District Municipality in the Western Cape Province, hereafter referred to as "the property".

*M.S*

**Preferred site**

Alternative (preferred site)	Latitude	Longitude
North-West Corner	32° 40' 51.2904"S	20° 50' 44.9772"E
North-East Corner	32° 40' 28.3368"S	20° 53' 42.1260"E
South-West Corner	32° 50' 31.8876"S	20° 46' 52.8240"E
South-East Corner	32° 47' 57.4440"S	20° 54' 37.2924"E

**On site substation**

Substation	32° 46' 15.0420"S	20° 49' 47.7588"E
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**Access to site**

Access to site	32.838026"S	20° 49' 23.7504"E
Access point 1	32.838026"S	20° 49' 23.7504"E
Access Point 2	32.716284"S	20° 53' 00.9816"E

**Preferred temporary laydown area**

Temporary laydown area	32° 48' 37.1988"S	20° 49' 33.4740"E
	32° 43' 49.4652"S	20.872925"E

**Preferred temporary laydown area**

Temporary Site Camp	32° 43' 13.1232"S	20° 52' 43.2732"E
	32° 43' 30.6120"S	20° 53' 00.9384"E

The 275 MW Komsberg West Wind Energy Facility will comprise of the following:

- Up to 36 wind turbines of between 2 MW and up to 5 MW in capacity with a rotor diameter of up to 140m and a hub height of up to 120m;
- Foundations and hardstands associated with the wind turbines;
- Up to 8m wide internal access road to each turbine, the substation complex and the ancillary infrastructure including underground cabling adjacent to the roads. Road length would be up to approximately 40km in total;
- Medium voltage cabling between turbines and the substation, to be laid underground where practical;
- Overhead medium voltage cables between certain turbine strings or rows;

- A 100m x 150m on site substation complex to facilitate stepping up the voltage from medium to high voltage to enable the connection of the wind farm to the national grid;
- An approximately 55km high voltage powerline (132 kV) from the on-site substation to the national grid at the Eskom Komsberg Main Transmission substation;
- A 30m x 50m operations and services workshop area/office building for control, maintenance and storage; and,
- Temporary infrastructure including a site camp, laydown areas and a batching plant totalling 150m x 100m in extent.

Technical details of the proposed facility:

<b>Component</b>	<b>Description / Dimensions</b>
Location of the site	Approximately 40 km south east of Sutherland
Farm names	Portion 1 of De Plaat 205; Portion 2 of Schalkwykskraal 204; Portion 0 of VlakKloof 11; Portion 1 of Weldemoed 268; Portion 2 of Weldemoed 268; Portion 2 of Taayboschkraal 12;
Site access	Site access will be via the R354 tarred road between Matjiesfontein and Sutherland to the west of the site, and then using local district gravel roads.
Export capacity	Up to 275 MW
Proposed technology	Wind turbines
Number of turbines	Up to 36 wind turbines
Hub height from ground level	120m
Rotor diameter	140m
Width and length of internal roads	Internal roads width: Approximately 8 m Internal roads length: Approximately 50 km

## Conditions of this Environmental Authorisation

### Scope of authorisation

1. The 275 MW Komsberg West Wind Energy Facility with a maximum of **36 turbines** and its associated infrastructure as described above is hereby approved.
2. The following turbine positions are not approved: KW 02, 03, 04, 17, 18, 19, 20, 37 38, 39, 40, 41, 42, 46, 47, 48, 49, 50, 55 and must not form part of the development.
3. 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.
4. 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.
5. The activities authorised may only be carried out at the property as described above.
6. 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.
7. 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.
8. This activity must commence within a period of five (05) 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.
9. Construction must be completed within five (05) years of the commencement of the activity on site.
10. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.



### **Notification of authorisation and right to appeal**

11. 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.
12. The notification referred to must –
  - 12.1. specify the date on which the authorisation was issued;
  - 12.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
  - 12.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
  - 12.4. give the reasons of the competent authority for the decision.
13. The holder of the authorisation must publish a notice –
  - 13.1. informing interested and affected parties of the decision;
  - 13.2. informing interested and affected parties where the decision can be accessed; and
  - 13.3. drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.

### **Commencement of the activity**

14. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 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**

15. A copy of the final development 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:

- 16.1 Cable routes (where they are not along internal roads);
  - 16.2 Position of wind turbines and associated infrastructure;
  - 16.3 The location of the turbines that were removed as per condition 2 and 127 of this EA;
  - 16.4 The location of all the infrastructure that must be relocated as per condition 37, 38, 39, 40, and 41 of this EA;
  - 16.5 Internal roads indicating width;
  - 16.6 Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
  - 16.7 All sensitive features e.g. Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
  - 16.8 Substation(s) inverters and/or transformer(s) sites including their entire footprint;
  - 16.9 Connection routes (including pylon positions) to the distribution/transmission network;
  - 16.10 All existing infrastructure on the site, such as roads;
  - 16.11 Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
  - 16.12 Buildings, including accommodation; and,
  - 16.13 All "no-go" and buffer areas.
16. 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 shapefile 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  
Arcadia  
Pretoria

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

17. The Environmental Management Programme (EMPr) 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.
18. The EMPr amendment must include the following:
  - 18.1. The requirements and conditions of this authorisation.
  - 18.2. All recommendations and mitigation measures recorded in the EIAr.
  - 18.3. All mitigation measures as listed in the specialist reports must be included in the EMPr and implemented.
  - 18.4. The final site layout map.
  - 18.5. The South African Astronomical Observatory, Southern African Largest Telescope, and the South African Civil Aviation Authority must be provided an opportunity to review and provide comment on the use of lighting on the development footprint. The comments must be incorporated into the EMPr.
  - 18.6. An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
  - 18.7. A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation

specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.

- 18.8. A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- 18.9. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- 18.10. The post construction avifaunal monitoring plan that must adhere to Birdlife's most recent avifaunal guideline.
- 18.11. A conservation management plan must be drafted and submitted to SAHRA for review and comment. The management plan, as recommended by SAHRA must be included in the final EMP.
- 18.12. A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate 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.
- 18.13. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- 18.14. 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.
- 18.15. A fire management plan to be implemented during the construction and operational phases.
- 18.16. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.

- 18.17. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- 18.18. A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of the turbine as stated in the EIAr and this authorisation.
19. 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.
20. Changes to the EMPr must be submitted to this Department for approval before such changes could be effected.
21. 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**

22. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 30 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.
23. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
24. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. 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.
25. 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 GN R.982. 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.
26. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The holder must notify the Department of its intention to amend the EMPr at least 60 days prior to submitting such amendments to the EMPr to the Department for approval. In

assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.

### **Monitoring**

27. The holder of the authorisation must appoint an experienced independent 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.
  - 27.1. The ECO must be appointed before commencement of any authorised activities.
  - 27.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
  - 27.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
  - 27.4. 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**

28. 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.
29. 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.
30. 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 GN R. 982.
31. 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.
32. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 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.

33. 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**

34. 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**

35. 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**

36. 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**

##### Conditions for non-operational aspects

##### Avifauna and bats

37. A uniform 500m buffer applies to all identified avifaunal 'no-go' areas.
38. All turbines, the substation and construction camp/laydown area positions must be relocated outside the 500m uniform avifaunal buffer.
39. A 1km buffer must be applied for all confirmed bat roosting sites.
40. A 200m buffer must be applied for all potential bat roosting sites.
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41. A 200m buffer must be applied for all specific dolerite sills.
42. All powerlines linking wind turbines to each other and to the internal substation must be buried.
43. As an absolute minimum, bird and bat monitoring, must occur at least 6 months pre-construction, continue during the construction period, and continue for at least three years during the operation of the facility. The results of this monitoring must be made available to the DEA and Birdlife South Africa (BLSA) for comment and must further advise the EMPr where necessary.
44. The results of the pre-construction bird monitoring assessment including all recommendations proposed by the reports dated May 2016, must inform the final layout and the construction schedule of the facility.
45. All bird monitoring must be conducted in accordance with the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa.
46. The facility must be designed in a manner that prevents infrastructure components from being used as perching or roosting substrates by birds and bats, as such is prohibited.
47. 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.
48. Anti-collision devices such as bird flappers must be installed where powerlines 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.
49. A pre-construction walk through of the approved powerline 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 alignments have the least possible impact, there are no nest sites of priority species on or close to the construction corridor and all protected plant species impacted are identified.

#### Vegetation, wetlands and water resources

50. The areas identified as 'high' and 'very high' sensitivity by the final mitigated biodiversity layout must be regarded as 'no-go' areas.
  51. The 'no-go' areas of the development property must be clearly demarcated and must be excluded from the final layout plan.
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52. All watercourses are regarded as sensitive. All developments within 500m of watercourses must comply with the National Water Act.
  53. Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).
  54. Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO.
  55. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
  56. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan to be included in the final EMPr.
  57. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
  58. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
  59. No activities will be allowed to encroach into a water resource without a water use license being in place from the Department of Water and Sanitation.
  60. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
  61. 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).
  62. Contractors and construction workers must be clearly informed of the no-go areas.
  63. Where roads pass right next to major water bodies, provisions must be made for fauna such as toads to pass under the roads by using culverts or similar structures.
  64. Bridge design must be such that it minimises impact to riparian areas with minimal alterations to water flow and must allow the movement of fauna and flora.
  65. 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.
  66. 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.
  67. 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.
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68. Wetlands, rivers and river riparian areas must be treated as "no-go" areas and 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 of the ECO, except for rehabilitation work in these areas.
69. Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and wetland areas and this awareness must be promoted throughout the construction phase.
70. 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.
71. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
72. 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.
73. 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.
74. 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

75. Existing road infrastructure must be used as far as possible for providing access to the proposed 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 that minimum amount of damage is caused to natural habitats.
  76. 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 must be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
  77. Internal access roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed such that they do not decrease channel stability or increase water velocity.
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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 regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
82. Roads must be designed such that changes to surface water runoff are avoided and erosion is not initiated.
83. All construction vehicles must adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.

#### Noise

84. The potential noise impact must be re-evaluated should the layout be changed such that any wind turbines are located closer than 1,000m from a confirmed noise sensitive area.
85. 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.
86. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
87. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
88. 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).
89. Construction staff must be trained in actions to minimise noise impacts.

#### Visual resources

90. 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.
  91. 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.
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92. 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.
93. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
94. Commercial messages and graffiti on turbines are prohibited.

#### Human health and safety

95. 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.
96. Potential interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
97. 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.
98. 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.
99. 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.
100. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
101. No unsupervised open fires for cooking or heating must be allowed on site.

#### Hazardous materials and waste management

102. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
  103. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
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104. 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.
105. 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.
106. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
107. 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.
108. Temporary bunds must be constructed around chemical storage to contain possible spills.
109. Spill kits must be made available on-site for the clean-up of spills.
110. 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).
111. 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.
112. The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2014.

#### Excavation and blasting activities

113. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
  114. 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.
  115. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
  116. Anti-erosion measures such as silt fences must be installed in disturbed areas.
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### Air emissions

117. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
118. 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

119. A 60m buffer must be applied around all identified archaeological sites.
120. Pre-construction archaeological monitoring is required. The appointed archaeologist must keep a list documenting all identified farm infrastructure.
121. If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) so that a systematic and professional investigation / excavation can be undertaken.
122. Construction managers/foremen must be informed before construction starts of the possible types of heritage sites and cultural material that may be encountered and the procedures to follow when they find sites.
123. All buffers and no-go areas stipulated in this report must be adhered to for both the facilities and all roads and powerlines.
124. 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.
125. All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) must be kept out of the buffer zones.
126. The final layout must be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.

### Turbines position

127. The following turbines are excluded from this environmental authorisation: turbine positions KW 02, 03, 04, 17, 18, 19, 20, 37 38, 39, 40, 41, 42, 46, 47, 48, 49, 50, 55.

128. The remaining approved turbines must avoid all areas designated as “no-go” areas as well as their buffers.
129. The final placement of turbines must follow a micro siting procedure involving a walk-through and identification of any sensitive areas by botanical, avifaunal and bats specialists.
130. Exclusion of sensitive ecological, heritage and paleontological areas from construction activities must inform micro siting of all development activities.
131. Should any occupied farm buildings be affected by shadow flicker, the holder of this Environmental Authorisation must provide mitigation measures to reduce the impact to an acceptable level as advised by a suitably qualified specialist.

#### Conditions for operational aspects

##### Avifauna and bats

132. Ensure the implementation of a operational monitoring plan to survey impacts resulting from the infrastructure on the bird communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as bird collisions and continue to gather information on the bird communities present in the area and monitor the effectiveness of the mitigation measures for a minimum duration of at least three years.
133. 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.
134. A bat monitoring program to determine the actual impacts on the bat community for a minimum of three years must be implemented.
135. The results of this monitoring must be made available to the DEA, Birdlife South Africa (BLSA) and the South African Bat Assessment Advisory Panel (SABAAP) and must further advise the EMPr where necessary.

##### Vegetation, wetlands and water resources

136. The ‘no-go’ areas of the development property must be clearly demarcated and must be avoided.
137. All watercourses are regarded as sensitive. All activities within 500m of watercourses must comply with the National Water Act.

138. Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).
139. 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).
140. Contractors and operation workers must be clearly informed of the no-go areas.
141. 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.
142. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
143. 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.

#### Roads and transportation

144. Existing road infrastructure must be used as far as possible for providing access to the proposed 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.
145. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information to minimize impacts on possible faunal species.
146. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.

#### Noise

147. Routine noise measurements must be conducted during the operation of the facility and a complaints register must be opened and made available to affected parties and to the Department on request.
148. 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.
149. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.

#### Visual resources

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150. Lighting of main structures (turbines) and ancillary buildings must minimise light pollution without compromising safety, and turbines must be lit according to Civil Aviation Regulations.
151. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
152. Commercial messages and graffiti on turbines are prohibited.

#### Human health and safety

153. A health and safety programme must be developed to protect both workers and the general public during operation 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.
154. Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
155. The holder of this authorisation must ensure that the operation of the wind facility complies with the relevant communication regulations or guidelines relating to electromagnetic interference, e.g. microwave, radio and television transmissions.
156. The holder of this authorisation must train safety representatives, managers and workers in workplace safety.

#### Hazardous materials and waste management

157. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
158. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
159. 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.
160. 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.
161. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
162. 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.

163. Temporary bunds must be constructed around chemical storage to contain possible spills.
164. Spill kits must be made available on-site for the clean-up of spills.
165. 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).
166. The holder of this authorisation must provide sanitation facilities for the operation staff.

#### Air emissions

167. 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.

#### **General**

168. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
  - 168.1. at the site of the authorised activity;
  - 168.2. to anyone on request; and
  - 168.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
169. 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: 08/09/2011



**Mr Sabelo Malaza**

**Chief Director: Integrated Environmental Authorisations**

**Department of Environmental Affairs**

## 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 and amended application form received on 26 November 2015 and 26 May 2016, respectively;
- b) The information contained in the EIAr dated May 2016;
- c) The comments received from Heritage Western Cape (HWC), SAHRA, SANRAL, Eskom, South African Civil Aviation Authority (SACAA), DAFF Northern Cape Region, South African Astronomy Observatory (SAAO), Western Cape Department of Transport and Public Works, Department of Rural Development and Land Reform, Department of Water and Sanitation and Department of Environmental Affairs and Development Planning, DENC, ATNS, Cape Nature and interested and affected parties as included in the EIAr dated May 2016;
- 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 May 2016 and as appears below:

Title	Prepared by	Date
Visual Impact Assessment	Bernard Oberholzer	March 2016
Aquatic Impact Assessment	Scherman Colloty & Associates	April 2016
Social Impact Assessment	Tony Barbour and Schalk Van der Merwe	December 2015
Flora and Fauna Impact Assessment	Simon Todd	December 2015
Avifaunal Impact Assessment	Arcus Consultancy Services and peer reviewed by Wild Skies	April 2016
Bat Impact Assessment	Arcus Consultancy Services and peer reviewed by Animalia Zoological & Ecological Consultation	April 2016
Noise Impact Assessment	Enviro Acoustic Research	October 2015
Palaeontological impact assessment	J. Almond PhD of Natura Viva	December 2015

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Noise impact assessment	M. de Jager and S. Weiberg of Enviro Acoustic Research	December 2015
Heritage Impact Assessment	ACO Associates	November 2015
Paleontological Impact Assessment	Natura Viva	November 2015
Soils and Agricultural Potential Study	ARC – Institute for Soil, Climate and Water	June 2015
Transport Assessment	Aurecon South Africa	May 2016
EMPr	Arcus	May 2016

## 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 EIA dated May 2016 identified all legislation and guidelines that have been considered in the preparation of the EIA dated May 2016.
- d) The location of turbines as presented in the final EIA.
- e) The methodology used in assessing the potential impacts identified in the EIA dated May 2016 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 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 EIA dated May 2016 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 proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) The information contained in the EIAr dated May 2016 is deemed to be accurate and credible.
- 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.