



## **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: 14/12/16/3/3/2/900**

**Enquiries: Mmamohale Kabasa**

**Telephone: (012) 399 9420 E-mail: MKabasa@environment.gov.za**

Mr KM Mbanjwa  
Brandvalley Wind Farm (Pty) Ltd.  
125 Buitengracht Street, 5th Floor  
**CAPE TOWN**  
8001

Telephone Number: (021) 300 0613  
Email Address: methuli@g7energies.com

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

Dear Mr Mbanjwa

### **APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 982/983 FOR THE 147 MW BRANDVALLEY WIND ENERGY FACILITY NORTH OF THE TOWN OF MATJIESFONTEIN WITHIN THE KAROO HOOGLAND, WITZENBERG AND LAINGSBURG LOCAL MUNICIPALITIES IN THE WESTERN AND NORTHERN CAPE PROVINCE**

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

In terms of regulation 4(2) of the Environmental Impact Assessment Regulations, 2014 (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

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.

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**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:** 23/11/2015

cc:	A Jackson	EOH Coastal & Environmental Services	Email: a.jackson@cesnet.co.za
	A Gabriel	Western Cape DEA & DP	Email: Alvan.Gabriel@westerncape.gov.za
	B Fisher	Northern Cape DENC	Email: bfisher@ncpg.gov.za
	J Venter	Laingsburg Local Municipality	Email: jventer@laingsburgl.gov.za
	G von Mollendorf	Karoo Hoogland Local Municipality	Email: khm.municipalmanager@gmail.com
	A Grobbelaar	Witzenberg(Ceres) Local Municipality	Email: anita@witzenberg.gov.za



## **environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

# **Environmental Authorisation**

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

**The 140 MW Brandvalley Wind Energy Facility (WEF) within the Karoo Hoogland, Witzenberg and Laingsburg Local Municipalities in the Western and Northern Cape Province**

**Central Karoo, Namakwa and Cape Winelands District Municipalities**

<b>Authorisation register number:</b>	<i>14/12/16/3/3/2/900</i>
<b>Last amended:</b>	<i>First issue</i>
<b>Holder of authorisation:</b>	<i>Brandvalley Wind Farm (Pty) Ltd</i>
<b>Location of activity:</b>	<i>The Remainder of Farm Barendskraal 76, Portion 1 of Farm Barendskraal 76, Remainder of Farm Brandvalley 75, Portion 1 of Farm Brandvalley 75, Remainder of Farm Fortuin 74, Portion 3 of Farm Fortuin 74, Remainder of Farm Kabeltouw 160, Remainder of Farm Muishond Rivier 161, Portion 1 of Farm Muishond Rivier 161, Portion 1 of Farm Fortuin 74 (Ou Mure), Farm Rietfontein 197.</i>

	<i>Witzenberg, Laingsburg and Hoogland Local Municipality. Central Karoo, Namakwa and Cape Winelands District Municipality. Western and Northern Cape Province.</i>
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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 –

**BRANDVALLEY WIND FARM (PTY) LTD**

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

with the following contact details –

Mr Khangelani Methuli Mbanjwa



Brandvalley Wind Farm (Pty) Ltd.

125 Buitengracht Street, 5<sup>th</sup> Floor

**CAPE TOWN**

**8001**

Telephone Number: (021) 300 0613

Fax Number: (086) 514 1735

Cell phone Number: (083) 697 9241

Email Address: methuli@g7energies.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
<u>GN R 983 Activity 11:</u> <i>"The development of facilities or infrastructure for the transmission and distribution of electricity-</i> <i>(i) Outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts"</i>	The project will entail the construction of substations and powerline/s with a capacity of 33kV or more but less than 275kV (outside an urban area).
<u>GN R. 983: Activity 12:</u> <i>"The development of-</i> <i>(x) buildings exceeding 100 square metres in size; or</i> <i>(xii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs-</i> <i>(a) within a watercourse;</i> <i>(c) if no development setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse"</i>	Associated infrastructure and structures with a physical footprint of 100 square metres or more such as turbines, substations, access roads or buildings and other associated infrastructure exceeding 100 square metres will be constructed within a watercourse or within 32 metres of a watercourse.
<u>GN R. 983: Activity 19:</u> <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> <i>(i) a watercourse;"</i>	The construction of access roads, cabling, turbines and other associated infrastructure will require the infilling or depositing of material of more than 5 cubic metres into a watercourse or

	the dredging, excavation or removal of more than 5 cubic metres from a watercourse.
<p><u>GN R. 983 Activity 24:</u></p> <p><i>"The development of –</i></p> <p><i>(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres."</i></p>	The WEF will require access roads with parts wider than 8m in width (up to 12m in width), to be constructed outside urban areas, with no reserve.
<p><u>GN R. 983: Activity 28:</u></p> <p><i>"Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development:</i></p> <p><i>(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;"</i></p>	The development footprint for the WEF will cover an area greater than 1 hectare on land currently used for agriculture.
<p><u>GN R. 984: Activity 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>	The WEF will generate an electricity output of more than 20 MW. Brandvalley will apply to have a contracted capacity of up to 140 MW.
<p><u>GN R. 984: Activity 15:</u></p> <p><i>"The clearance of an area of 20 hectares or more of indigenous vegetation."</i></p>	The development footprint for the WEF will cover an area greater than 20 hectares.
<p><u>GN R. 985: Activity 4:</u></p> <p><i>"The development of a road wider than 4 metres with a reserve less than 13,5 metres.</i></p> <p><i>(a) In Northern Cape Province:</i></p> <p><i>ii. outside urban areas in;</i></p> <p><i>(bb) National Protected Areas Expansion 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 of an international convention.</i></p>	The access roads proposed within the Northern Cape will be wider than 4 meters with a reserve less than 13.5 metres, outside of urban areas within areas earmarked for expansion of protected areas, sensitive areas in terms of the National Wetlands Inventory and the National Freshwater Ecosystem Priority Areas (NFEPA) (as there are important wetlands and wetlands and rivers of NFEPA status) and within areas

<p>(ee) <i>Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</i></p> <p>(f) <i>In Western Cape:</i></p> <p>(i) <i>Areas outside urban areas;</i></p> <p>(aa) <i>Areas containing indigenous vegetation;"</i></p>	<p>identified as Critical Biodiversity Areas (CBAs) and Ecological Support Area (ESA).</p> <p>The access roads proposed within the Western Cape will be wider than 4 meters with a reserve less than 13.5 metres, outside of urban areas within areas containing indigenous vegetation.</p>
<p><u>GN R. 985: Activity 12:</u></p> <p><i>"The clearance of an area of 300 square metres or more of indigenous vegetation in-</i></p> <p><i>a) Western Cape province:</i></p> <p><i>(i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;</i></p> <p><i>(ii) Within critical biodiversity areas identified in bioregional plans; or</i></p> <p><i>(d) In Northern Cape:</i></p> <p><i>(i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004."</i></p>	<p>Land clearance of an area of 300 square meters or more of indigenous vegetation will take place during the construction phase of the proposed project. According to the desktop study, there are no threatened terrestrial ecosystems identified within the project area. There are wetlands and rivers of NFEPA status found within the project area. This will be verified by an ecologist. The project does, however, fall within a CBA and an ESA in terms of the Cape Winelands District Municipality, a T2 CBA in terms of the Namakwa Municipality and a CBA and an ESA in terms of the Central Karoo District Municipality.</p>
<p><u>GN R. 985: Activity 14:</u></p> <p><i>"The development of –</i></p> <p><i>(x) buildings exceeding 10 square metres in size;</i></p> <p><i>(xii) 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 if a watercourse, measured from the edge of a watercourse.</i></p> <p><i>(a) In Northern Cape:</i></p>	<p>Infrastructure exceeding these footprints will occur within 32 metres of a watercourse, in the Northern and Western Cape outside of urban areas within areas earmarked for expansion of protected areas, sensitive areas in terms of the National Wetlands Inventory and the National Freshwater Ecosystem Priority Areas (NFEPA) (as there are important wetlands and wetlands and rivers of NFEPA status) and within areas identified as CBAs and ESAs.</p>

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<p><i>(ii) Outside urban areas, in:</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</i></p> <p><i>(ee) Sites or areas identified in terms of an International Convention.</i></p> <p><i>(ff) Critical biodiversity areas or ecosystems service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</i></p> <p><i>(f) In Western Cape:</i></p> <p><i>i. Outside urban areas, in:</i></p> <p><i>(bb) National Protected Area Expansion Strategy Focus areas;</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 identified in terms of an International Convention.</i></p> <p><i>(ff) Critical biodiversity areas or ecosystems service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans."</i></p>	
<p><u>GN R.985 Activity 18:</u></p> <p><i>"The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p><i>(a) In Northern Cape province:</i></p> <p><i>ii. Outside urban areas, in:</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 of an International Convention;</i></p>	<p>The upgrading of the roads for the project will involve widening and/or lengthening of existing access roads. The undertaking of this activity will take place in the Northern Cape Province, outside urban areas within areas earmarked for expansion of protected areas, sensitive areas in terms of the National Wetlands Inventory and the National Freshwater Ecosystem Priority Areas (NFEPA) (as there are important wetlands and wetlands and rivers of NFEPA status) and within areas identified as CBAs and ESAs as well as in the Western Cape, in areas outside of urban areas containing indigenous vegetation.</p>

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<p>(ee) <i>Critical biodiversity areas or ecosystems service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</i></p> <p>(ii) <i>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; or</i></p> <p>(f) <i>Western Cape:</i></p> <p>i. <i>All areas outside urban areas:</i></p> <p>(aa) <i>Areas containing indigenous vegetation."</i></p>	
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as described in the Environmental Impact Assessment Report (EIAR) dated September 2016 at:

Facility (preferred site)	Latitude	Longitude
North Corner	32° 55'26.01"S	20° 24'52.75"E
East Corner	32° 57'0.38"S	20° 32'59.29"E
South Corner	33° 01'35.97"S	20° 32'29.86"E
West Corner	32° 59'44.86"S	20° 19'59.11"E
<b>33/132kV Substation position 4</b>	32° 58'36.16"S	20° 26'23.66"E
<b>Construction camp 1</b>	32° 57'09.78"S	20° 32'41.52"E
<b>Access to site</b> (Alternative Access Road 1)	32° 57'03.84"S	20° 32'56.03"E

- for the 140 MW Brandvalley Wind Energy Facility located on the Remainder of Farm Barendskraal 76, Portion 1 of Farm Barendskraal 76, Remainder of Farm Brandvalley 75, Portion 1 of Farm Brandvalley 75, Remainder of Farm Fortuin 74, Portion 3 of Farm Fortuin 74, Remainder of Farm Kabeltouw 160, Remainder of Farm Muishond Rivier 161, Portion 1 of Farm Muishond Rivier 161, Portion 1 of Farm Fortuin 74 (Ou Mure) and Farm Rietfontein 197 north of the town of Matjiesfontein within the Karoo Hoogland, Witzenberg and Laingsburg Local Municipalities in the Western and Northern Cape Province, hereafter referred to as "the property".

The 140 MW Brandvalley Wind Energy Facility will comprise the following:

- 58 wind turbines with a maximum generating capacity of 140MW in total;
- Concrete foundations approximately 25m in diameter and 4m deep per turbine;
- 690V/33/kV transformer of 10m x 10m per hard standing area per turbine;
- Laydown areas of approximately 70m x 50m per turbine (total 20.3ha);

- Construction camp of 10ha and onsite batching plant of 1ha;
- 200m access road corridor to accommodate slight shift in alignments that are fully informed by the final detailed design of access road Alternative 1 and internal road network, up to 9m in width;
- Buildings;
- Overhead 33kV powerlines and underground cabling;
- Low voltage yard of the 33/132kV onsite substation Position Number 4. The total footprint of the 33/132kV onsite substation (including both high voltage (Eskom yard) and low voltage yards (IPP yard)) will be up to 200m x 200m;
- Lighting system;
- Fencing of the site construction camp; and
- 4 x 120m tall wind measuring lattice masts strategically placed within the wind farm development footprint to collect data on wind conditions during the operational phase.

Technical details of the proposed facility:

Component	Description/ Dimensions
Location of the site	~ 30km north of the town of Matjiesfontein along the R354
Farm Names and SG Codes	<p>The Remainder of Barendskraal 76: (C0430000000007600000)</p> <p>Portion 1 of Barendskraal 76: (C0430000000007600001)</p> <p>The Remainder of Brandvalley 75: (C0430000000007500000)</p> <p>Portion 1 of Brandvalley 75: (C0430000000007500001)</p> <p>The Remainder of Fortuin 74: (C0430000000007400000)</p> <p>Portion 3 Fortuin 74: (C0430000000007400003)</p> <p>The Remainder of Kabeltouw 160: (C01900000000016000000)</p> <p>The Remainder of Muishond Rivier 161: (C01900000000016100000)</p> <p>Portion 1 of Muishond Rivier 161: (C01900000000016100001)</p> <p>Portion 1 of Fortuin 74 (Ou Mure): (C0430000000007400001)</p> <p>The Farm Rietfontein 197: (C07200000000019700000)</p>
Site access	Access road alternative 1 (including internal access roads) to connect the facility with the R354
Export capacity	Up to 140MW
Proposed technology	Wind turbines
Number of Turbines	58
Hub height from ground level	120m
Rotor diameter	140m

Width and length of internal roads	Internal roads width: Up to 9m wide Internal roads length: Approximately 92km of which approximately 34km are existing roads that would be upgraded
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## Conditions of this Environmental Authorisation

### Scope of authorisation

1. The 140 MW Brandvalley Wind Energy Facility as described above is hereby approved.
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
6. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of 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.
8. Construction must be completed within five (05) years of the commencement of the activity on site.
9. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

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

10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
11. The notification referred to must –
  - 11.1. specify the date on which the authorisation was issued;
  - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
  - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
  - 11.4. give the reasons of the competent authority for the decision.
12. The holder of the authorisation must publish a notice –
  - 12.1. informing interested and affected parties of the decision;
  - 12.2. informing interested and affected parties where the decision can be accessed; and
  - 12.3. 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**

13. 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**

14. 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:

- 14.1 Cable routes (where they are not along internal roads);
  - 14.2 Position of wind turbines and associated infrastructure;
  - 14.3 Internal roads indicating width;
  - 14.4 Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
  - 14.5 All sensitive features e.g. Important Bird Areas, Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
  - 14.6 Substation(s) inverters and/or transformer(s) sites including their entire footprint;
  - 14.7 Connection routes (including pylon positions) to the distribution/transmission network;
  - 14.8 All existing infrastructure on the site, such as roads;
  - 14.9 Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
  - 14.10 Buildings, including accommodation; and,
  - 14.11 All "no-go" and buffer areas.
15. 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

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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

16. 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.
17. The EMPr amendment must include the following:
  - 17.1. The requirements and conditions of this authorisation.
  - 17.2. All recommendations and mitigation measures recorded in the EIAr.
  - 17.3. All mitigation measures as listed in the specialist reports must be included in the EMPr and implemented.
  - 17.4. The final site layout map.
  - 17.5. 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.
  - 17.6. 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.
  - 17.7. 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.

- 17.8. 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.
- 17.9. The construction and operational avifaunal monitoring plan that is in line with BirdLife South Africa/Endangered Wildlife Trust's most recent guideline.
- 17.10. A conservation management plan as required by SAHRA.
- 17.11. 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.
- 17.12. 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.
- 17.13. 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.
- 17.14. A fire management plan to be implemented during the construction and operational phases.
- 17.15. 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.
- 17.16. An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- 17.17. 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 EIA and this authorisation.
18. The final amended EMP (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.

19. Changes to the EMPr must be submitted to this Department for approval before such changes could be effected.
20. 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**

21. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 28 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.
22. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
23. 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.
24. 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.
25. 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**

26. 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.
    - 26.1. The ECO must be appointed before commencement of any authorised activities.
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- 26.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
- 26.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 26.4. 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**

- 27. 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.
- 28. 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.
- 29. 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.
- 30. 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.
- 31. 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.
- 32. 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**

- 33. 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**

34. 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**

35. 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

36. A uniform 200m buffer applies to all identified bat 'no-go' areas. No turbines are to be located on the edge of the buffer.
37. The results of the pre-construction bird monitoring assessment including all recommendations proposed by the reports dated September 2016, must inform the final layout and the construction schedule of the energy facility.
38. A construction and operation monitoring plan must be developed and be implemented to survey impacts resulting from the infrastructure installation on the bird communities with focus on assessing the displacement and disturbance effects of the development on the bird communities, as well as continue to gather information on the bird communities present in the area and monitor the effectiveness of the mitigation measures for a minimum duration of at least three years during operation.
39. The following curtailment measures must be implemented:
- SM4: Turbines 28 – 31
- Snydersberg: Turbines 42, 43, 44, 45
- Barendskraal NW: Turbines 14.

	<b>Terms of mitigation implementation</b>
<b>Spring peak activity (times to implement curtailment/ mitigation)</b>	Snydersberg: Month of October 21:00 – 02:00 Below 5m/s measured at nacelle height
<b>Environmental conditions in which to implement curtailment/ mitigation</b>	Above 9°C
<b>Autumn peak activity (times to implement curtailment/ mitigation)</b>	SM4: 1 -15 March Sunset – 22:00 Below 7m/s measured at nacelle height
<b>Environmental conditions in which to implement curtailment/ mitigation</b>	Above 17°C
<b>Summer peak activity (times to implement curtailment/ mitigation)</b>	Barendskraal NW: 1 December – 10 January 1 December – 15 January 20:00 – 01:00
<b>Environmental conditions in which to implement curtailment/ mitigation</b>	Below 9m/s measured at nacelle height Above 11°C

40. A bat monitoring program to determine the actual impacts on the bat community for a minimum of three years must be developed and be implemented. This must be done according to the latest SABAAP's guidelines.
41. 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.
42. The facility must be designed in a manner such that infrastructure components that could be used as perching or roosting substrates by birds and bats must be prohibited.
43. 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.
44. 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.

45. 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 alignment have the least possible impact, there are no nests sites of priority species on or close to the construction corridor and all protected plant species impacted are identified.

Vegetation, wetlands and water resources

46. The 'no-go' areas of the development property must be clearly demarcated and must be excluded from the final layout plan.
47. All watercourses and associated wetlands are regarded as sensitive. All developments within 500m of watercourses must comply with National Water Act.
48. No powerline towers, substations and construction camps must be placed within the delineated water courses as well as their respective buffers without obtaining the required approvals. A 32m buffer must be applied along all identified watercourses and a 50m buffer must be applied along all identified wetlands.
49. No substations, construction camps, temporary or permanent laydown areas or any activities associated with the development are to be located within the National Protected Areas Expansion Strategy focus area (NPAES).
50. A pre-construction survey of the final development footprint must be conducted by a qualified floral specialist to identify protected species affected by the proposed development. Prior to the commencement of construction, a rescue and rehabilitation operation for these species which could survive translocation must be conducted.
51. 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 made available on request.
52. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
53. 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.
54. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
55. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.



56. 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.
57. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing, but must be temporarily stored in a demarcated area.
58. 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).
59. Relevant permits must be obtained from relevant authorities for any removal or destruction of Threatened or Protected Species (TOPs).
60. Contractors and construction workers must be clearly informed of the no-go areas.
61. Where roads pass right next to major water bodies, provision shall be made for fauna such as toads to pass under the roads by using culverts or similar structures.
62. Bridge design must be such that it minimise impact to riparian areas with minimal alterations to water flow and must allow the movement of fauna and flora.
63. 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.
64. 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.
65. 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.
66. 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.
67. Workers must be made aware of the importance of not destroying or damaging the vegetation along rivers and in wetland areas and this awareness must be promoted throughout the construction phase.
68. 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.
69. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
70. 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.

71. 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.
72. 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

73. Access road Alternative 1 as described above is approved as the site access to the development area.
74. Internal access roads and internal powerlines/cables that pass through the NPAES must be confined to existing roads and any upgrades must be limited to no more than 9m with a 30m clearly demarcated buffer zone.
75. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration should be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
76. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.
77. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
78. Signage must be erected at appropriate points warning of turning traffic and the construction site.
79. Construction vehicles carrying materials to the site should avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
80. Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
81. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
82. All construction vehicles should adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.

#### Noise

83. 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.
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84. 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.
85. Additional monitoring must be undertaken at wind turbine 52 and wind turbine 53 should any noise complaints be received. The noise investigation must be done by an independent acoustic consultant and if the noise level is found to be of unacceptable levels, noise mitigation measures should be implemented to cushion those that are affected.
86. The holder of this authorisation must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA must wear ear protection equipment.
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. Positions of turbines jeopardizing compliance with accepted noise levels should be revised during the micro-siting of the units in question and predicted noise levels re-modelled by the noise specialist, in order to ensure that the predicted noise levels are less than 45dB(A).
90. Construction staff must be trained in actions to minimise noise impacts.

#### 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 their original 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 should 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 are prohibited.

#### Human health and safety

96. 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
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- 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.
97. The holder of this authorisation must ensure that the operation of the wind facility shall comply with the relevant communication regulations or guidelines relating to electromagnetic interference, e.g. microwave, radio and television transmissions.
98. Potential interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
99. 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.
100. 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.
101. 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.
102. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
103. No unsupervised open fires for cooking or heating must be allowed on site.

#### Hazardous materials and waste management

104. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
105. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
106. 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.
107. 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.
108. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
109. 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.

- 110. Temporary bunds must be constructed around chemical storage to contain possible spills.
- 111. Spill kits must be made available on-site for the clean-up of spills.
- 112. 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).
- 113. 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.
- 114. 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

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

#### Air emissions

- 119. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
- 120. 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

121. A 30m buffer must be applied around all identified archaeological sites.
122. After initial vegetation clearance has taken place but before the ground is levelled for construction, a professional palaeontologist must undertake a walkthrough and document any identified paleontological findings. The survey/walkthrough must be conducted as per the South African Heritage Resources Agency (SAHRA) requirements.
123. Should any archaeological sites, artefacts, paleontological fossils or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, SAHRA must be informed and the services of an accredited heritage professional obtained for an assessment of the heritage resources to be made
124. Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may be encountered and the procedures to follow when they find sites.
125. All buffers and no-go areas stipulated in this report must be adhered to for both the facilities and all roads and powerlines.
126. 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.
127. All construction and maintenance crew and vehicles (except small vehicles which may use existing farm tracks) should be kept out of the buffer zones.
128. The final layout should be shown to the appointed archaeologist before implementation to confirm that all significant heritage resources have been adequately protected.

#### Turbines position

129. The approved turbines must be placed in a manner to avoid all designated, "no-go" areas as well as its buffers.
130. The final placement of turbines must follow a micro siting procedure involving a walk-through and identification of any sensitive areas by botanical and avifaunal specialists.

131. Exclusion of sensitive ecological, heritage and paleontological areas from construction activities must inform micro siting of all development activities.
132. Turbines must be positioned in such a way that shadow flicker does not affect any farm buildings.

#### **General**

133. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-
- 133.1. at the site of the authorised activity;
  - 133.2. to anyone on request; and
  - 133.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
134. 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: 23/11/2016



**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 received on 19 January 2016 and amended on 08 June 2016.
- b) The information contained in the Draft Scoping Report dated January 2016 and received on 19 January 2016.
- c) The information contained in the Final Scoping Report dated March 2016 and received on 03 March 2016.
- d) The information contained in the Draft EIAR dated April 2016 and received on 26 April 2016.
- e) The information contained in the amended Draft EIAR dated August 2016 and received on 17 August 2016.
- f) The information in the Final EIAR dated September 2016 and received on 20 September 2016.
- g) The comments received from Heritage Western Cape; the Department of Energy; SANRAL; Telkom; the Department of Agriculture, Forestry and Fisheries; the Astronomy Management Authority (DST); the Department of Science and Technology; the Northern Cape Department of Environment and Nature Conservation; the South African Heritage Resources Agency; Birdlife South Africa, the South African Astronomical Observatory and the South African Large Telescope as included in the Final EIAR dated September 2016.
- h) The information contained in the specialist studies within the appendices of the Final EIAR dated September 2016 and as appears below:

Title	Prepared by	Date
Visual Impact Assessment	T King of EOH Coastal and Environmental Services and peer reviewed by H Holland	March 2016
Aquatic Impact Assessment	B Colloty of Scherman Colloty & Associates	July 2016
Agriculture Impact Assessment	R de Kock of EOH Coastal and Environmental Services and peer reviewed by J. Lanz	March 2016
Bats Impact Assessment	W Marais & M Moir of Animalia Zoological & Ecological Consultation (Pty) Ltd	May 2016



Noise Impact Assessment	B Williams of Safetech	April 2016
Palaeontological Impact Assessments	JE Almond of Natura Viva cc	April 2016
Archaeological Impact Assessment	C Booth of Booth Heritage Consulting	July 2016
Avifaunal Impact Assessment	AJ Williams of African Insights	March 2016
Social Impact Assessment	T Barbour of Independent Consultant	July 2016
Ecological Impact Assessment	S Todd of Simon Todd Consulting	August 2016
Traffic Impact Assessment	H Steyn of Aurecon South Africa (Pty) Ltd	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 electricity grid.
- c) The EIAr dated September 2016 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The location of turbines and associated infrastructure.
- e) The methodology used in assessing the potential impacts identified in the EIAr dated September 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 EIAr dated September 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 turbines and associated infrastructure are located outside all identified environmentally sensitive areas.
- e) The information contained in the EIAR dated September 2016 is deemed to be accurate and credible.
- f) EMP 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 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, 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.