



## **environmental affairs**

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

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

**DEA Reference:** 12/12/20/1717/1

**Enquiries:** Mr Muhammad Essop

**Telephone:** (012) 399 9406 **E-mail:** MEssop@environment.gov.za

Ms Jasandra Nyker  
Amstilite (RF) Proprietary Limited  
PO Box 69408  
**BRYANSTON**  
2021

Telephone Number: (011) 367 4600  
Email Address: eiaadmin@biothermenergy.com

### **PER EMAIL / MAIL**

Dear Ms Nyker

### **AMENDMENT OF THE ENVIRONMENTAL AUTHORISATION ISSUED ON 05 APRIL 2011 FOR THE 120MW AMSTILITE (RF) PROPRIETARY LIMITED GOLDEN VALLEY WIND ENERGY PROJECT 1, BLUE CRANE ROUTE LOCAL MUNICIPALITY, COOKHOUSE IN THE EASTERN CAPE PROVINCE**

The Environmental Authorisation (EA) issued for the above mentioned application by this Department on 05 April 2011, your application for an amendment of the EA received on 25 November 2015, the acknowledgement letter dated 03 December 2015, the draft additional information received for comment on 04 January 2016 and the additional information received on 22 February 2016, refer.

Based on a review of the reason for requesting an amendment to the above EA, this Department, in terms of Chapter 5, Regulation 27(2)(a) of the Environmental Impact Assessment Regulations, 2014, has decided to amend the EA dated 05 April 2011 by issuing a new EA.

**The attached EA will replace the EA as well as the subsequent amendments.** All further amendments must be lodged on the attached EA.

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 Department's decision in respect of the amendment made 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. Kindly include a copy of this document with the letter of notification to interested and affected parties.

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 applicant by the competent authority.

By post: Private Bag X447,  
Pretoria, 0001; or

By hand: Environment House  
473 Steve Biko,  
Arcadia, Pretoria,

**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)).

Yours faithfully



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

Date: 10/06/2016

cc	Mr Marc Hardy	EOH Coastal & Environmental Services	E-mail: m.hardy@cesnet.co.za
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## environmental affairs

Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

# Environmental Authorisation

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

The 120MW Amstillite (RF) Proprietary Limited Golden Valley Wind Energy Project 1, Blue Crane Route  
Local Municipality, Cookhouse, in the Eastern Cape Province

### Blue Crane Route Local Municipality

<b>Authorisation register number:</b>	<i>12/12/20/1717/1</i>
<b>Last amended:</b>	<i>Second Issue</i>
<b>Holder of authorisation:</b>	<i>Amstillite (RF) Proprietary Limited</i>
<b>Location of activity:</b>	<i>Farm 169 Portion 2 (Olive Woods); Farm 166/RE (Olive Fonteyn); Farm 167/RE (Klein Riet Fontein); Farm 181 Portion 1(Cregus Kraal); Farm 283; Farm 284; Farm 159/RE (Mullers Kraal); Portion 1 of Farm Boschfonteyn 180; Blue Crane Route Local Municipality; Eastern 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 –

### **AMSTILITE (RF) PROPRIETARY LIMITED**

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

with the following contact details –

Ms Jasandra Nyker

PO Box 69408

**BRYANSTON**

2021

Telephone Number: (011) 367 4600

Fax Number: (011) 367 4601

Email Address: eiaadmin@biothermenergy.com

*MS*

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 & Listing Notice 2 (GN R. 386 & 387):

Listed activities
<p>GN R. 387 Item 1(a):</p> <p><i>"The construction of facilities or infrastructure, including associated structures or infrastructure, for –</i></p> <p><i>(a) The generation of electricity where –</i></p> <p><i>(i) the electricity output is 20 megawatts or more; or</i></p> <p><i>(ii) the elements of the facility cover a combined area in excess of 1 hectare."</i></p>
<p>GN R. 387 Item 1(l):</p> <p><i>"The construction of facilities or infrastructure including associated structures or infrastructure, for the generation of electricity where the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more".</i></p>
<p>GN R386 Item 2:</p> <p><i>"Any development activity, including associated structures and infrastructure, where the total area of the developed area is, or is intended to be, 20 hectares or more"</i></p>
<p>GN R386 Item 1(m):</p> <p><i>"Any purpose in the one in ten year floodline of a river or stream, or within 32 metres from the bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including</i></p> <p><i>(i) Canals;</i></p> <p><i>(ii) Channels;</i></p> <p><i>(iii) Bridges;</i></p> <p><i>(iv) Dams; and</i></p> <p><i>Weirs".</i></p>
<p>GN R386 Item 7:</p> <p><i>"The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30m<sup>3</sup> at any one location or site".</i></p>
<p>GN R386 Item 12:</p> <p><i>"The transformation or removal of indigenous vegetation of 3ha or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004)".</i></p>
<p>GN R386 Item 14:</p> <p><i>"The construction of masts of any material of type and of any height, including those used for telecommunications broadcasting and radio transmission, but excluding</i></p>



(a) masts of 15m and lower exclusively used (i) by radio amateurs; or (ii) for lighting purposes  
 (b) flagpoles; and  
 (c) lightning conductor poles.”

GN R386 Item 15:

“The construction of a road that is wider than 4 metres or that has a road reserve wider than 6 metres, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.”

as described in the amended Environmental Impact Assessment Report (EIAR) dated February 2016 at:

**21 SG Code:**

C	0	1	0	0	0	0	0	0	0	0	0	0	1	6	9	0	0	0	0	2
C	0	1	0	0	0	0	0	0	0	0	0	0	1	6	6	0	0	0	0	0
C	0	1	0	0	0	0	0	0	0	0	0	0	1	6	7	0	0	0	0	0
C	0	1	0	0	0	0	0	0	0	0	0	0	1	8	1	0	0	0	0	1
C	0	1	0	0	0	0	0	0	0	0	0	0	2	8	3	0	0	0	0	0
C	0	1	0	0	0	0	0	0	0	0	0	0	2	8	4	0	0	0	0	0
C	0	1	0	0	0	0	0	0	0	0	0	0	1	5	9	0	0	0	0	0
C	0	1	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	1

**Site (preferred)**

Co-ordinates of the development footprint	Latitude (S)	Longitude (E)
C	-32.8865	25.9703
H	-32.8776	25.9482
I	-32.8639	25.9008
J	-32.8682	25.8699
K	-32.9080	25.8677
L	-32.9055	25.8543
M	-32.9182	25.8583
N	-32.9245	25.8251
O	-32.9450	25.8337
P	-32.9346	25.8686

M.5

Q	-32.9466	25.9056
R	-32.9349	25.9263
S	-32.9504	25.9626
<b>Co-ordinates of the grid connection</b>	<b>Latitude (S)</b>	<b>Longitude (E)</b>
A	-32.9020	25.9459
B	-32.9023	25.9476
C	-32.8865	25.9703
D	-32.8875	25.9738
E	-32.8917	25.9780
F	-32.8868	25.9907
G	-32.8754	25.9990

- for the 120 MW Amstilite (RF) Proprietary Limited Golden Valley Wind Energy Project 1 and its associated infrastructure on the Farm 169 Portion 2 (Olive Woods); Farm 166/RE (Olive Fonteyn); Farm 167/RE (Klein Riet Fontein); Farm 181 Portion 1 (Cregus Kraal); Farm 283; Farm 284; Farm 159/RE (Mullers Kraal); Portion 1 of Farm Boschfonteyn 180 in the Blue Crane Route Local Municipality; Eastern Cape Province, hereafter referred to as "the property".

The 120 MW Amstilite (RF) Proprietary Limited Golden Valley Wind Energy Project 1 will comprise of the following:

- 48 wind turbines of 2.55MW each (mounted on 90m masts and nacelle; 121m diameter rotor – consisting of 3 blades);
- Concrete foundations to support the wind turbine towers;
- Internal access roads to each turbine - approximately 5 metres wide;
- Underground cables connecting the wind turbines and the on-site substation;
- An on-site substation;
- 132 kilovolt (KV) overhead powerline;
- Possible upgrading of existing roads for the transportation of the turbines;
- A building to house the control instrumentation and backup power support. As well as a store room for the maintenance equipment.

Technical details of the proposed facility:

Component	Description/ Dimensions
Location of the site	Farm 169 Portion 2 (Olive Woods); Farm 166/RE (Olive Fonteyn); Farm 167/RE (Klein Riet Fontein); Farm 181 Portion 1(Cregus Kraal); Farm 283; Farm 284; Farm 159/RE (Mullers Kraal); Portion 1 of Farm Boschfonteyn 180; Blue Crane Route Local Municipality; Eastern Cape Province
SG Codes	C01000000000016900002 C01000000000016600000 C01000000000016700000 C01000000000018100001 C01000000000028300000 C01000000000028400000 C01000000000015900000 C01000000000018000001
Export capacity	120 MW
Hub Height	90m
Rotor Diameter	121m
Blade Length	59.5m
Maximum Output per Turbine	2.55MW

## Conditions of this Environmental Authorisation

### Scope of authorisation

1. The 120 MW Amstilite (RF) Proprietary Limited Golden Valley Wind Energy Project 1 and its associated infrastructure on the Farm 169 Portion 2 (Olive Woods); Farm 166/RE (Olive Fonteyn); Farm 167/RE (Klein Riet Fontein); Farm 181 Portion 1(Cregus Kraal); Farm 283; Farm 284; Farm 159/RE (Mullers Kraal); Portion 1 of Farm Boschfonteyn 180 in the Blue Crane Route Local Municipality, Eastern Cape Province 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 three (03) 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 5 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.
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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. The development layout plan title: GCWF-GEN-SDP-D-002-Rev3 Golden Valley Wind Farm Site Development Plan drawn by Thomas King and dated December 2015 is hereby approved.
15. The Environmental Management Programme (EMPr) (Reference number 12/12/20/1717/AM8 and dated December 2015) submitted as part of the application for EA is hereby approved. This EMPr must be implemented and adhered to.
16. The EMPr must be implemented and strictly enforced during all phases of the project. It must be seen as a dynamic document and must be included in all contract documentation for all phases of the development when approved.
17. Should the holder of this environmental authorisation propose any changes to the EMPr, the holder of this environmental 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.
18. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAR be discovered.
19. A shapefile of the 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 or 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

**Frequency and process of updating the EMPr**

20. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 27 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
21. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
22. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of 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.

23. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of 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.
24. 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**

25. 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.
  - 25.1. The ECO must be appointed before commencement of any authorised activities.
  - 25.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
  - 25.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
  - 25.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

### **Recording and reporting to the Department**

26. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department.
27. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the

environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department.

28. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
29. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
30. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
31. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

#### **Notification to authorities**

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

#### **Operation of the activity**

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

#### **Site closure and decommissioning**

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

## Specific conditions

### Avifauna and bats

35. A bird monitoring programme must be implemented to document the effect of the operation of the wind energy facility on avifauna and bats. This should commence prior to construction (to provide a benchmark), and continue during operation of the wind energy facility.
36. Turbines must be placed at least 300m apart to avoid bird collisions.
37. Reports regarding bird monitoring must be submitted to Birdlife South Africa, the Endangered Wildlife Trust (EWT) and this Department on a quarterly basis. The report will assist all stakeholders in identifying potential and additional mitigation measures and to establish protocols for bird monitoring programmes for wind energy development in the country.
38. If recommended by the specialist, ultrasound broadcast must be used to deter bats and birds from flying into wind turbines.
39. Wind turbines operating times must be restricted during times when bat activity is high or they must be programmed to switch off under specific conditions prone to bat collision such as during low wind.
40. The applicant must implement, in collaboration with all project proponents for the respective wind farms in Cookhouse and a suitable qualified avifauna specialist, an active long-term bird monitoring programme in order to understand the nature of impacts on avifauna due to wind energy facilities on the site.
41. If high bird mortalities are recorded, based on the recommendation of the specialist, the applicant must investigate emitting broadcasts for a certain radio frequency to discourage birds from entering high collision areas.
42. The baseline data collected and documented during the survey must be shared with the EWT and Birdlife South Africa for a better understanding of the distribution or breeding behaviour of any of the priority species listed in the EIR dated October 2010 and the amended EIAR dated February 2016.
43. Habitat destruction must be kept to an absolute minimum by keeping the lay-down areas as small as possible, reducing the number and size/length of roads and reducing the final extent of the developed area.
44. The applicant must ensure that lighting on the turbines is kept to a minimum, and is coloured red and intermittent, rather than permanent and white, to reduce confusion effects for nocturnal migrants. Night time wind turbine obstruction lighting must consist of medium intensity type B aviation red flashing lights. Minimum intensities of 2 000 candela for night-time red flashing or strobe lights are required.
45. The facility must be designed to discourage their use as perching or nesting substrates by birds.



### **Vegetation, wetlands and water resources**

46. All species of special concern (SSC) must be identified and every effort must be made to rescue them.
47. The applicant must ensure that a continuous monitoring and removal of alien plant species such as those of *Puntia* and *Agave* species is implemented, as well as careful monitoring of the state of the landscape with the Eastern Cape Biodiversity Conservation Plan (ECBCP) land use planning principles.
48. Vegetation clearing must be kept to an absolute minimum. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species.
49. 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 Eastern Cape Department of Economic Development and Environmental Affairs (DEDEA) for the destruction of species protected in terms of the Provincial Nature Conservation Ordinance (PNCO) Schedule 4. Copies of the permits must be submitted to the Department for record keeping.
50. Construction activities must be restricted to demarcated areas to restrict impact on vegetation and animals.
51. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities should be undertaken as early as possible on disturbed areas.
52. All electrical collector lines must be as far as practical, buried in a manner that minimizes additional surface disturbance.
53. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
54. The applicant is required to inform the relevant provincial department and/or this Department should the removal of protected species, medicinal plants and "data deficient" plant species be required.
55. All hard infrastructures should be located within existing areas of low sensitivity, as far as possible.
56. All turbine and infrastructure must be located at least 100m from the edge of any high sensitive areas.
57. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
58. No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation.
59. Where infrastructure is to be located close to watercourses, water quality monitoring must be done on a regular basis. The frequency to be agreed with the Department of Water and Sanitation.
60. Appropriate erosion mitigation must be implemented to prevent any potential erosion.

### **Visual resources**

61. The applicant must reduce visual impacts during construction by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques, and restoring exposed solid as closely as possible to their original contour and vegetation.
62. An 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.
63. Commercial messages and graffiti on turbines must be avoided.
64. The lighting and markings of the wind energy facility must comply with the requirements of the Civil Aviation Authority.
65. Construction activities must be restricted to daylight hours in order to negate or reduce visual impacts associated with lighting.
66. Wind turbines must be painted bright white to provide the maximum daytime conspicuousness.

### **Air emissions**

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

### **Roads and ground transportation**

69. 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 should 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.
70. Road alignments must be planned in such a way that the minimum of cut and fill operations are required.
71. 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.

72. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
73. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
74. Signage must be erected at appropriate points warning of turning traffic and the construction site.
75. Internal access roads must be located away from drainage bottoms and avoid wetlands, if feasible.
76. Internal access roads must be located to minimize stream crossings. All structures crossing streams must be located and constructed so that they do not decrease channel stability or increase water velocity.
77. Existing drainage must not be altered, especially in sensitive areas.

### **Noise**

78. The applicant must ensure that all equipment and machinery are well maintained and equipped with silencers.

### **Historical/paleontological resources**

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

### **Hazardous materials and waste management**

81. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
82. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
83. Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved hazardous waste landfill site.
84. During the construction phase of the development, an effective monitoring system must be put in place to detect any leakage or spillage of all hazardous substances during their transportation, handling, installation and storage. The applicant must ensure that precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or stormwater system are in place.

85. Streams, river, pans, wetlands, dams and their catchments must be protected from erosion, direct or indirect spillage of pollutants.
86. 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.
87. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
88. The applicant must ensure that an effective monitoring system is put in place to detect any leakage or spillage of all hazardous substances.
89. 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 any vehicle maintenance must occur within 350 m of the temporal zone of wetlands, whether a drainage line with or without an extensive floodplain or hillside wetlands.
90. Temporary bunds must be constructed around chemical storage to contain possible spills.
91. Spill kits must be made available on-site for the clean-up of spills.
92. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate. Any solid waste shall be disposed of at a landfill licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No. 59 of 2008).
93. Temporary ablution facilities must be provided for staff at all times during the construction phase. The ablutions must be cleaned regularly with associated waste being disposed of at a registered/permited waste site and must be removed from the site when construction phase is completed.

#### **Storm water management**

94. Construction must include 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.

#### **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 wind energy facility. The programme must establish a safety zone for wind turbine generator from residences and occupied buildings, roads, right-

- of-ways, and other public access areas that is sufficient to prevent accidents resulting from the operation if wind turbine generators.
96. 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 NEMA Regulations, Government Notice 386 and 387 of 2006.
  97. Potential fire hazards must be managed by ensuring that no fire are permitted on site and that the constructors must be aware of the consequences of starting fire on site to avoid damage to the neighbouring farms.
  98. Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
  99. The applicant must ensure that the operation of the wind facility has minimal electromagnetic interference (EMI) (i.e. impacts to microwave, radio and television transmissions) and should comply with the relevant communication regulation.
  100. The applicant must obtain a written permit or 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. The approval/permit must be submitted to the Director: Environmental Impact Evaluation.
  101. The applicant 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 is to be done prior to construction in order to provide sufficient time for them to plan agricultural activities. If possible, construction should be scheduled to take place within the post-harvest, pre planting season, when fields are lying fallow.

#### **Excavation and blasting activities**

103. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
104. 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.
105. Borrow materials must be obtained only from authorized and permitted sites.
106. Anti-erosion measures such as silt fences must be installed in disturbed areas.

#### **Overhead powerline**

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107. All sections of the proposed powerline passing over, or in close proximity of grasslands, rivers, wetlands, and dams must be marked with suitable bird flight diverters in order to deter large birds from colliding with any powerline. Additional areas of high sensitivity along the preferred alignment must be identified by an avifaunal specialist for the fitment of anti-collision devices according to Eskom Transmission Guidelines.
108. A Search and Rescue (S&R) operation of all the Red Data as well as rare endangered plants must be undertaken on the exact spots selected on which the pylons will be erected by a suitable qualified botanist. All plants present must be surveyed and collected for documentation at South National Biodiversity Institute (SANBI) and particular species, especially those which are rare and threatened species are moved to nurseries for re-establishment after construction and/or relocated to protected areas.

### **Turbines**

109. Turbines must be positioned in such a way that they are at least 500m away from farm complexes, most of which have moderate degree of heritage significance.
110. Turbines must be positioned in such a way that shadow flicker does not affect any farm complexes.
111. Facility and infrastructure must not be placed at any slope that is steeper than 18%, preferable be placed on the crest landscape.
112. Wind turbines and associated laydown areas and access roads which could potentially impact on sensitive areas must be shifted in order to avoid these areas of high sensitivity.
113. The recommendations of the EAP in the EIAr dated February 2016 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.

### **General**

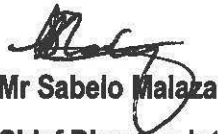
114. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
  - 114.1. at the site of the authorised activity;
  - 114.2. to anyone on request; and



114.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.

115. 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: 10/06/2016



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations

Department of Environmental Affairs

## Annexure 1: Reasons for Decision

### 1. Background

The applicant, Terra Wind Energy Golden Valley (Pty) Ltd, applied for authorisation to carry out the following activities –

- Item: 2            *“Any development activity, including associated structures and infrastructure, where the total area of the developed area is, or intended to be 20 hectares or more”.*
- Item: 1 (l)        *“The construction of facilities or infrastructure including associated structures or infrastructure, for the generation of electricity where the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more”.*
- Item:1(m)        *“Any purpose in the one in ten year floodline of a river or stream, or within 32 metres from the bank of a river or stream where the flood line is unknown, excluding purposes associated with existing residential use, but including*  
*(i) Canals;*  
*(ii) Channels;*  
*(iii) Bridges;*  
*(iv) Dams; and*  
*(v) Weirs”.*
- Item: 7            *“The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30m<sup>3</sup> at any one location or site”.*
- Item:12           *“The transformation or removal of indigenous vegetation of 3 ha or more or of any size where the transformation or removal would occur within a critically endangered or an endangered ecosystem listed in terms of section 52 of the National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004)”.*

Item: 16 (a) *"The transformation of undeveloped, vacant or derelict land to residential, mixed, retail, commercial, industrial or institutional use where such development does not constitute infill and where the total area to be transformed is bigger than 1 hectare".*

- for the 120 MW Amstillite (RF) Proprietary Limited Golden Valley Wind Energy Project 1 and its associated infrastructure on the Farm 169 Portion 2 (Olive Woods); Farm 166/RE (Olive Fonteyn); Farm 167/RE (Klein Riet Fontein); Farm 181 Portion 1(Cregus Kraal); Farm 283; Farm 284; Farm 159/RE (Mullers Kraal); Portion 1 of Farm Boschfonteyn 180 in the Blue Crane Route Local Municipality in the Eastern Cape Province.

The applicant appointed Coastal and Environmental Services (CES) to undertake an environmental assessment process in accordance with the EIA Regulations, 2006.

## **2. Information considered in making the decision**

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

- a) The information contained in the EIR dated October 2010;
- b) The comments received from the various interested and affected parties (I&APs) which are included in the EIR dated October 2010;
- c) Mitigation measures as proposed in the EIR dated October 2010 and the EMP;
- d) The information contained in the specialist studies contained in volume 2 of the EIR dated October 2010;
- e) The information contained in the Application for amendment of the EA received on 25 November 2015, the acknowledgement letter dated 03 December 2015, the draft additional information received for comment on 04 January 2016 and the additional information received on 22 February 2016; and
- f) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).

### 3. 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 significance are set out below:

- a) The need for the proposed development is directly related to enhancing production of renewable energy and to contribute towards the South Africa Government goal of producing 10 000 GWh of renewable energy by 2013.
- b) The major benefit of the project is the strengthening of the existing electricity grid and will aid the government in achieving its goal of a 30% share of new power generation being derived from Independent Power Producers (IPP).
- c) Six (6) specialist studies were commissioned as part of the EIR and it was found that the impacts associated with the proposed development can be mitigated and are acceptable.
- d) A sufficient public participation process was undertaken and the consultant has satisfied the minimum requirements as prescribed in the EIA regulations, 2006 for public involvement.
- e) As part of the EIA process, Coastal and Environmental Services (CES) being the principal consultancy identified potential environmental impacts associated with the proposed construction works and proposed feasible mitigation measures to mitigate the identified impacts.
- f) The motivation provided in the application form received on 25 November 2015, the acknowledgement letter dated 03 December 2015, the draft additional information received for comment on 04 January 2016 and the additional information received on 22 February 2016.

### 4. Findings

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

- The EIR includes the identification and assessment of impacts.
- The information contained in the EIR was relevant and credible for decision making.
- The applicant has satisfied the minimum requirements as prescribed in the EIA regulations of 21 April 2006.

- All legal and procedural requirements have been met.
- There has been sufficient consultation with I&APs.
- The proposed development is compatible with the proposed site for the development.
- The procedure followed for the impact assessment seems to be adequate for the decision-making process based on the size of the project and affected area. The assessing officer is of the opinion that the assessment is adequate and comprehensive enough and that possible impacts have been assessed correctly.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the proposed activity 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 proposed activity can be mitigated to acceptable levels. The authorisation for the activity is accordingly granted.