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: 14/12/16/3/3/2/686
Enquiries: Mr Herman Alberts
Telephone: (012) 399 9371 **E-mail:** HAlberts@environment.gov.za

Mr Peter Venn
Emoyeni Wind Farm Project (Pty) Ltd
Postnet Suite
Private Bag X26
CAPE TOWN
7966

Telephone number: (021) 701 1292
Email Address: peter.venn@windlab.com

PER EMAIL / MAIL

Dear Mr Venn

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 543/544/545/546: FOR THE PROPOSED PHASE 1 UMSINDE EMOYENI WIND ENERGY FACILITY NEAR MURRAYSBURG, WESTERN 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 10(2) of the Environmental Impact Assessment Regulations, 2010 (the Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 12 (twelve) 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.

Should any person wish to lodge an appeal against this decision, he/she must submit the appeal to the appeal administrator, and a copy of the appeal to the applicant, any registered interested and affected party, and any organ of state with interest in the matter within 20 days from the date that the notification of the decision was sent to the registered interested and affected parties by the applicant; or the date that the notification of the decision was sent to the applicant by the Department, whichever is applicable.

Appeals must be submitted in writing in the prescribed form to:

Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By email: appealsdirectorate@environment.gov.za;

By hand: Environment House
473 Steve Biko,
Arcadia,
Pretoria, 0083; or

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By post: Private Bag X447,
Pretoria, 0001;

Please note that in terms of section 43(7) of the National Environmental Management Act, 1998, the lodging of an appeal will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

To obtain the prescribed appeal form and for guidance on the submission of appeals, please visit the Department's website at https://www.environment.gov.za/documents/forms#legal_authorisations or request a copy of the documents at appealsdirectorate@environment.gov.za.

Yours sincerely

Mr Michael Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs
Date: 04/09/2018

cc:	Ms A Bodasing	Arcus Renewable Energy Consulting Ltd	Email: AshlinB@arcusconsulting.co.za
	Mr K Munro	WC DEADP	Email:kobus.munro@westerncape.gov.za
	Ms D Moleko	NC DENC	Email:dmoleko@ncpg.gov.za

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APPEALS PROCEDURE IN TERMS OF CHAPTER 7 OF THE NEMA EIA REGULATIONS, 2010 (THE REGULATIONS) AS PER GN R. 543 OF 2010 TO BE FOLLOWED BY THE APPLICANT AND INTERESTED AND AFFECTED PARTIES UPON RECEIPT OF NOTIFICATION OF AN ENVIRONMENTAL AUTHORISATION (EA)

APPLICANT	INTERESTED AND AFFECTED PARTIES (IAPs)
1. Receive EA from the relevant Competent Authority (the Department of Environmental Affairs [DEA]).	1. Receive EA from Applicant/Consultant.
2. Within 12 days of date of the EA notify all IAPs of the EA and draw their attention to their right to appeal against the EA in terms of Chapter 7 of the Regulations.	2. N/A.
3. If you want to appeal against the EA, submit a notice of intention to appeal within 20 days of the date of the EA with the Minister of Water and Environmental Affairs (the Minister).	3. If you want to appeal against the EA, submit a notice of intention to appeal within 20 days of the date of the EA. with the Minister of Water and Environmental Affairs (the Minister).
4. After having submitted your notice of intention to appeal to the Minister, provide each registered IAP with a copy of the notice of intention to appeal within 10 days of lodging the notice.	4. After having submitted your notice of intention to appeal to the Minister, provide the applicant with a copy of the notice of intention to appeal within 10 days of lodging the notice.
5. The Applicant must also serve on each IAP: • a notice indicating where and for what period the appeal submission will be available for inspection.	5. Appellant must also serve on the Applicant within 10 days of lodging the notice, • a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.
6. The appeal must be submitted in writing to the Minister within 30 days after the lapsing of the period of 20 days provided for the lodging of the notice of intention to appeal.	6. The appeal must be submitted to the Minister within 30 days after the lapsing of the period of 20 days provided for the lodging of the notice of intention to appeal.
7. Any IAP who received a notice of intention to appeal may submit a responding statement to that appeal to the Minister within 30 days from the date that the appeal submission was lodged with the Minister.	7. An Applicant who received notice of intention to may submit a responding statement to the appeal to the Minister within 30 days from the date that the appeal submission was lodged with the Minister.

NOTES:

1. **An appeal must be:-**
   a) submitted in writing;
   b) accompanied by:
   - a statement setting out the grounds of appeal;
   - supporting documentation which is referred to in the appeal; and
   - a statement that the appellant has complied with regulation 62 (2) or (3) together with copies of the notices referred to in regulation 62.

Mr

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of regulation 36 of the Environmental Impact Assessment Regulations, 2010

Phase 1 of the Umsinde Emoyeni wind energy facility near Murraysburg, Western Cape Province

Central Karoo District Municipality and Pixley Ka Seme District Municipality

Authorisation register number:	*14/12/16/3/3/2/686*
Last amended:	*First issue*
Holder of authorisation:	*Emoyeni Wind Farm Project (Pty) Ltd*
Location of activity:	*Remainder of Farm 28; Portion 1 of Farm 29; Remainder, Portion 2, 3, 4 and remainder of Portion 1 of the Farm De Hoop 30; Portion 1 of the Farm Matjeskloof 27; The Farm Voetpad 51; Portion 3, 4, 7, 10 and Remainder of Portion 2, of Farm Driefontein 26; Portion 1 of the Farm Middelvaly 52; Portion 1 and Remainder of the Farm Klein Driefontein 152; Portion 2 and 7 of Farm Witteklip 32; Portion 2 of Farm Swavel Kranse 28; Remainder, Portion 1, 3, 4, 6, 7 and Remainder of Portion 2 of Farm Klipplaat 109; Beaufort West and Ubuntu Local Municipalities Northern and Western Cape Provinces*

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, 2010 the Department hereby authorises –

EMOYENI WIND FARM PROJECT (PTY) LTD

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

with the following contact details –

Mr Peter Venn
Postnet Suite
Private Bag X26
CAPE TOWN
7966

Telephone Number: (021) 701 1292
Cell phone Number: (083) 689 3063
Email Address: peter.venn@windlab.com

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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. 544, 545 & 546):

Activity number	Activity description
GN R.544: Activity 11: *The construction of:* *(iii) bridges;* *(x) buildings exceeding 50 square metres in size; or* *(xi) infrastructure or structures covering 50 square metres or more, where such construction occurs within a watercourse or within 32m of a watercourse, measured from the edge of a watercourse.*	The internal roads will include a minimum of eight water crossings, some of which may require bridges to be constructed within a watercourse. The footprint of the turbines and associated infrastructure will exceed 50 m², but a 32 m buffer around all watercourses has been applied for buildings and infrastructure.
GN R.544: Activity 18: *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) a watercourse.*	New bridges may need to be constructed or expanded for the construction phase of the WEF, the result of which would mean that there may be removal or moving of soil, sand, pebbles or rock of more than 5 cubic metres from a watercourse
GN R.544: Activity 39: *The expansion of* *(iii) Bridges; within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, where such expansion will result in an increased development footprint.*	The internal roads will include a minimum of eight water crossings, some of which may require existing farm bridges to be expanded.
GN R.544: Activity 47: *The widening of a road by more than 6 m, or the lengthening of a road by more than 1 km – (i) where the existing reserve is wider than 13,5 m; or* *(ii) where no reserve exists, where the existing road is wider than 8 m.*	Where roads are present and may require widening for access reasons during construction this clause may be applicable. However, it is unlikely that any large roads will be affected.

GN R.545: Activity 1: *The construction of facilities or infrastructure for the generation of electricity where the electricity* *(i) Output is 20 MW or more.*	Construction of a wind energy facility up to 147 MW in installed capacity. The facility will be comprised of individual, spatially separated, turbines with an individual generating capacity of 1.5 – 4.5 MW each.
GN R.545: Activity 15: *Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, Recreational, industrial or institutional use where the total area to be transformed is 20 ha or more.*	The footprint of the substation compound will be 5 hectares, but the servitude to be cleared can be 457 hectares. Further to this The project is located on currently undeveloped land the combined footprint of the turbines, laydown areas, internal roads and substation will exceed 20 hectares.
GN R.546: Activity 4: *The construction of a road wider than 4 m with a reserve less than 13.5 m* *(d) In Western Cape:* *(ii) All areas outside urban areas.*	Access tracks will be required between the turbines and other infrastructure onsite. These will be unsealed and up to 9 m wide during construction, but will be reduced to max. 6 m width during operation. The proposed site falls outside of urban areas.
GN R.546: Activity 14: *The clearance of an area of 5 ha or more of vegetation where 75% or. more of the vegetative cover constitutes indigenous vegetation:* *(a) In the Northern Cape and Western Cape:* *i. All areas outside urban areas.*	The site falls outside of urban areas. Clearance of vegetation will be required for construction of the turbine foundations, hardstands, substation and road network in areas with 75 % or more of indigenous vegetation and this will exceed 5 ha.
GN R.546: Activity 19: *The widening of a road by more than 4 m, or the lengthening of a road by more than 1 km (d) In the Western Cape:* *(ii) All areas outside urban areas.*	Where existing tracks/roads exist within the site these maybe widened or lengthened to facilitate the access tracks of 4-9m which will be used to access the turbines. These access tracks will be up to 9 m wide during construction, but will be reduced to 4-6m during operation.

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In terms of Regulation 53 (3) of 2014 Regulations, the competent authority hereby authorise activities which are similarly listed in terms of the 2014 Regulations and are as follows:

Activity number	Activity description
GN R.983: Activity: 12 *The construction of-* *(iii) bridges exceeding 100 square meters in size;* *(x) buildings exceeding 100 square meters in size;* *(xii) infrastructure or structures with a physical footprint of 100 square meters or more;* *where such development occurs* *(a) within a watercourse; or* *(c) if no developments setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.*	The internal roads include a minimum of eight water crossings, some of which may require bridges to be constructed within a watercourse. Some of these may exceed 100 m2. The footprint of the turbines and associated infrastructure will exceed 50 m2, but a 32 m buffer around all watercourses has been applied for buildings and infrastructure.
GN R.983: Activity 19: *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) a watercourse*	New bridges may need to be constructed or expanded for the construction phase of the WEF, the result of which would mean that there may be removal or moving of soil, sand, pebbles or rock of more than 5 cubic metres from a watercourse
GN R.983: Activity 28: *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* *(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare..*	The majority of the proposed development site is currently used for agriculture, lies outside an urban area and the land to be developed will be bigger than 1 hectare.

GN R.983: Activity 48: *The expansion of* *(iii) bridges where the bridge is expanded by 100 square meters or more in size; where such development occurs –* *(a) within a watercourse;* *(b) in front of a development setback; or* *(c) if no developments setback exists, within 32 metres of a watercourse, measured from the edge of a watercourse.*	The internal roads include a minimum of eight water crossings, some of which may require existing farm bridges to be expanded. Some of these may exceed 100 m2.
GN R.983: Activity 56: *The widening of a road by more than 6 m, or the lengthening of a road by more than 1 kilometre –* *(i) where the existing reserve is wider than 13.,5 metres; or (ii) where no reserve exists, where the existing road is wider than 8 metres..*	Where roads are present and may require widening for access reasons during construction this clause may be applicable. However, it is unlikely that any large roads will be affected.
GN R.984: Activity 1: *The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more.*	Construction of a wind energy facility up to 147 MW in installed capacity. The facility will be comprised of individual, spatially separated, turbines with an individual generating capacity of 1.5 – 4.5 MW each.
GN R.984: Activity 14: *The development of –* *(iii) bridges exceeding 10 square meters in size;* *(x) buildings exceeding 10 square metres in size and* *(xi) infrastructure or structures with a physical footprint of 10 square metres or more;* *Where such development occurs-* *(a) within a watercourse and* *(c)if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse*	Bridges may need to be constructed over watercourses exceeding 10m^2 in size. The development site area covers a small portion that falls within the Karoo Escarpment Grassland (NPAESFA) of the Western Cape Province, no development will occur in this area and no required water crossings fall within a critical Biodiversity Area.

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(f) In Western Cape: *(i)outside urban areas, in:* *(bb) National Protected Area Expansion Strategy Focus* *(ff) Critical biodiversity areas or ecosystems service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans*	
GN R.984: Activity 15: *The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for* *(i) the undertaking of a linear activity; or* *(ii) Maintenance purposes undertaken in accordance with a maintenance plan.*	The project is located on currently undeveloped land the combined footprint of the turbines, laydown areas, internal roads and substation will exceed 20 hectares.
GN R.984: Activity 18: *The widening of a road by more than 4 metres; or the lengthening of a road by more than 1 kilometre* *(f) in Western Cape:* *(i) All areas outside urban areas:* *(aa) Areas containing indigenous vegetation.*	Where existing tracks or roads exist within the site these maybe widened or lengthened to facilitate the access tracks of 4 – 9m which will be used to access the turbines. These access tracks will be up to 9m wide during construction, but will be reduced to 4-6m during operation.
GN R.985: Activity 4: *The development of a road wider than 4 metres with a reserve less than 13.5 metres.* *(f) in Western Cape:* *(i) areas outside urban areas;* *(aa) areas containing indigenous vegetation.*	Access tracks will be required between the turbines and other infrastructure onsite. These will be unsealed and up to 9 m wide during construction, but will be reduced to max. 6 m width during operation. The proposed site falls outside of urban areas and contains indigenous vegetation.

as described in the Environmental Impact Assessment (EIAr) dated January 2018 at:

Site Coordinates:

	Latitude	Longitude
Site Alternative	24°2'45.48"S	31°50'57.07"E

- for the Phase 1 Umsinde Emoyeni wind energy facility (WEF) near Murraysburg, Western Cape Province, hereafter referred to as "the property".

The Umsinde Emoyeni wind energy facility will include the following infrastructure:

- Up to 35 wind turbines;
- Hardstanding area of up to 45 m by 25 m;
- Temporary laydown areas of up to 150 m by 60 m;
- Electrical Cabling and Onsite Substation;
- Existing farm access tracks and watercourse crossings will be upgraded;
- on-site office compound, including site offices, parking and an operation and maintenance facility including a control room;
- In addition to the key components outlined above, the WEF will also require:
  - Anemometer masts;
  - Security fencing; and
  - CCTV monitoring towers.

Technical details of the proposed facility:

Component	Description/ Dimensions
Number of turbines	Up to 35 turbines
Hub height	Up to 135m
Blade length	75m
Rotor Diameter	Up to 150 m
Area occupied by transformer stations/ substation	200 x 250 m single storey substation compound
Capacity of on-site substation	33/132 kV
Area occupied by both permanent and construction laydown areas	150 m x 60 m
Areas occupied by buildings	200 m x 250 m
Length of internal access roads	35.8 km
Width of internal roads	9 m during construction, 4-6 m during operation

Height of fencing	2 m - 2.5 m
Type of fencing	Steel palisade fencing around construction camp Concrete palisade around substation

Conditions of this Environmental Authorisation

Scope of authorisation

1. Phase 1 of the Umsinde Emoyeni WEF near Murraysburg, Western Cape Province with a maximum of 35 wind turbines 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 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.

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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 12 (twelve) 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, 2010;
    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, 2010.

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, 2010. 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 applicant 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. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:

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14.1. Position of solar facilities and its associated infrastructure;

14.2. Internal roads indicating width and length;

14.3. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;

14.4. All sensitive features e.g. heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;

14.5. Substation(s) inverters and/or transformer(s) sites including their entire footprint;

14.6. Cable routes and trench dimensions (where they are not along internal roads);

14.7. All existing infrastructure on the site, especially roads;

14.8. Buildings, including accommodation; and,

14.9. All "no-go" and buffer areas.

15. Furthermore, 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

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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 and specialist studies attached as part of the EIAr.

17.3 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.

17.4 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.

17.5 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.

17.6 A traffic management plan for the site access roads to ensure that no hazards would results 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.

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17.7 A storm water and wash 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 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.

17.8 An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.

17.9 An effective monitoring system to detect any leakage or spillage of any hazardous substances during their transportation, handling, use or storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.

17.10 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.

17.11 A fire management plan to be implemented during the construction and operation of the facility.

17.12 An environmental sensitivity map indicating environmentally sensitive areas and features identified during the EIA process.

17.13 The final site layout map.

17.14 The final site layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the approved location of the wind turbines as stated in the EIAr and this environmental authorisation.

Frequency and process of updating the EMPr

18. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 26 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.

19. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.

20. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of 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.

21. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of 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.
22. 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

23. 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.
    23.1. The ECO must be appointed before commencement of any authorised activities.
    23.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
    23.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
    23.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

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

26. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
27. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
28. The environmental audit reports must be compiled in accordance with appendix 7 of the EIA Regulations, 2010 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.
29. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

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

Operation of the activity

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

Site closure and decommissioning

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

Specific conditions

Avifauna and bats

33. The approved turbines and all its associated infrastructure must be kept out of all high sensitive areas.
34. Feathering must be implemented for all instances where the blade turning speed is below the manufacturer's cut-in speed.
35. All power lines linking wind turbines to each other and to the internal substation must be buried.
36. A bird and bat monitoring programme must be implemented to document the effect of the operation of the energy facility on avifauna and bats.
37. Active breeding nests on the development property must be monitored during the construction phase and further mitigation measures must be discussed with the avifaunal specialist and implemented if necessary.
38. The results of the pre-construction bat monitoring programme including all recommendations proposed by the specialist report must inform the final layout and the construction schedule of the energy facility.
39. A construction phase monitoring plan must survey bird communities at the Wind Energy Facility and must be implemented to monitor impacts resulting from the infrastructure installations. This plan must also detail the duration of the construction phase.
40. Post-construction bird and bat monitoring by an accredited monitor and/or specialist must take place for a minimum of two years. It must be done in accordance with the latest BirdLife South Africa/Endangered Wildlife Trust: Best practice guidelines for avian monitoring and impact mitigation at proposed wind energy development sites in Southern Africa and the SABAAP best practice guidelines.
41. Reports regarding bird monitoring must be submitted to the relevant provincial environmental department, BirdLife South Africa, the Endangered Wildlife Trust (EWT) and this Department on a quarterly basis. The report will assist all stakeholders in identifying potential and additional mitigation measures.
42. The facility must be designed in such a manner that infrastructure components cannot be used as perching or roosting substrates by birds and bats.
43. During construction the holder of this environmental authorisation must restrict the construction activities to the footprint area.
44. Anti-collision devices such as bird flappers must be installed where power lines cross avifaunal corridors (e.g. grasslands, rivers, wetlands, and dams). The input of an avifaunal specialist must be obtained for the fitting of the anti-collision devices onto specific sections of the line once the exact positions of the towers have been surveyed and pegged. Additional areas of high sensitivity along the preferred alignment must also be identified by the avifaunal specialist for the fitment of anti-collision devices. These devices must be according to Eskom's Transmission and EWT's Guidelines.

45. A pre-construction walk through on the selected power line alignment by a bat specialist, avifaunal specialist and ecologist, must be conducted to ensure that the micro-siting of the turbines has the least possible impact, there are no nests sites of priority species on or close to the construction corridor, and all protected plant species impacted are identified.

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. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
48. Vegetation clearing must be limited to the authorised footprint.
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 relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO.
50. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan to be included in the final EMPr.
51. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
52. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
53. No activities must be allowed to encroach into a water resource without a water use license being in place from the Department of Water and Sanitation.
54. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
55. 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).
56. The holder of this authorisation must ensure that all the "No-go" and buffer areas are clearly demarcated (using fencing and appropriate signage) before construction commences.
57. Contractors and construction workers must be clearly informed of the no-go areas.
58. 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.

59. 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.
60. 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.
61. 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.
62. 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.
63. 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.
64. 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.
65. 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.
66. No discharge of effluents or polluted water must be allowed into any rivers or wetland areas.
67. 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.
68. 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.
69. 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

70. 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.

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. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
73. Signage must be erected at appropriate points warning of turning traffic and the construction site.
74. 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.
75. Road borders should be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
76. All construction vehicles should adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.

Noise

77. The holder of this authorisation must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and measures to limit noise from the work site are implemented.
78. A complaints register to record noise complaints must be kept at the wind facility and made available to affected parties.
79. 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.
80. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
81. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
82. All wind turbines should be located at a setback distance of 500m from any homestead and a day/night noise criteria level at the nearest residents of 45dB(A) should be used to locate the turbines. The 500m setback distance can be relaxed if local factors, such as high ground between the noise source and the receiver, indicates that a noise disturbance will not occur.
83. 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).

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84. Construction staff must be trained in actions to minimise noise impacts.

Visual resources

85. 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.
86. 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.
87. 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.
88. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
89. Commercial messages and graffiti on turbines must be prohibited.

Human health and safety

90. Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
91. 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.
92. The holder of this authorisation must obtain confirmation 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.
93. The holder of this authorisation must obtain confirmation 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.
94. The holder of this authorisation must consult the Square Kilometre Array (SKA) project office to conduct electromagnetic interference (EMI) studies that comply with the SKA requirements. Such studies must take place prior to the detailed design of the Wind Energy Facility, as the EMI mitigation measures must inform this design. A copy of the results of the study, as well as approval from SKA must be kept on site by the ECO.

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95. 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.
96. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
97. No unsupervised open fires for cooking or heating must be allowed on site.

Hazardous materials and waste management

98. The Batching plant must be located within laydown areas outside sensitive ecological, heritage and paleontological areas.
99. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
100. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
101. 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.
102. 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.
103. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
104. 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.
105. Temporary bunds must be constructed around chemical storage to contain possible spills.
106. Spill kits must be made available on-site for the clean-up of spills.
107. 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).
108. 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.

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109. The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2010.

Excavation and blasting activities

110. Underground cables and internal access roads must be aligned to existing infrastructure as far as possible to limit damage to vegetation and watercourses.
111. Cabling routes outside internal access routes must be approved by this Department.
112. 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.
113. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.

Air emissions

114. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
115. 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

116. If concentrations of archaeological heritage material, fossils and human remains are uncovered during construction, all work must cease immediately and be reported to the South African Heritage Resources Agency (SAHRA) so that a systematic and professional investigation/ excavation can be undertaken.
117. Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.
118. All buffers and no-go areas stipulated in this report must be adhered to for both the facilities and all roads and power lines.

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Turbines position

119. The placement of the 35 approved turbines and all associated infrastructure must not be placed in high ecological, Bird and Bat sensitive areas. This includes "no-go" areas and its buffers.
120. 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.
121. Turbines must be positioned in such a way that shadow flicker does not affect any farm buildings.

General

122. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
    122.1. at the site of the authorised activity;
    122.2. to anyone on request; and
    122.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
123. 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: 06/09/2012

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 08 April 2010;

b) The information contained in the EIAr dated January 2018;

c) The comments received from the Nama Karoo Trust, BirdLife SA, South African National Roads Agency, Eskom Holdings SOC Limited, South African Heritage Resources Agency, Telkom SA SOC Ltd, Ministry of Water and Environmental Affairs, Ministry of Local Government, Environmental Affairs and Development Planning, Square Kilometre Array, Department of Mineral Resources, Department of Cultural Affairs and Sports and interested and affected parties as included in the EIAr dated January 2018;

d) Mitigation measures as proposed in the EIAr and EMPr dated January 2018;

e) The information contained in the specialist studies submitted as part of the EIAr dated January 2018, as well as the subsequent addendums and as appears below:

Title	Prepared by	Date
Visual Impact Assessment	Bernard Oberholzer	September 2015 February 2018
Ecological Impact Assessment	Simon Todd	October 2015 January 2018
Bat Impact Assessment	Inkululeko Wildlife Services	November 2015 February 2018
Aquatic Assessment	Scherman Colloty & Associates	October 2015 January 2018
Avifaunal Impact Report	Arcus Consultancy Services	September 2015 January 2018
Soil, Land Use, Land Capability & Agriculture Potential Survey	J.H. van der Waals	October 2015 February 2018
Heritage Impact Assessment	ACO Associates cc	February 2018
Environmental Noise Impact	Enviro-Acoustics Research	January 2018
Social Impact Assessment	Tony Barbour	December 2015

		February 2018
Path Loss Test Report	Interference Testing and Consultancy Services (Pty) Ltd	
Transport Risk Assessment	Jeffares & Green	September 2013

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) Details provided of the qualifications of the Environmental Assessment Practitioner (EAP).

b) The findings of all the specialist studies conducted and their recommended mitigation measures.

c) The need for the proposed project stems from the provision of electricity to the national grid in terms of the Renewable Energy Independent Power Producers Procurement Programme (REIPPPP) as required by the Department of Energy.

d) Description of the environment that may be affected by the activity and the manner in which the physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity.

e) The EIAr dated January 2018 identified all legislation and guidelines that have been considered in the preparation of the EIAr.

f) The methodology used in assessing the potential impacts identified in the EIAr dated January 2018 and the specialist studies have been adequately indicated.

g) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2010 for public involvement.

3. Findings

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

a) The identification and assessment of impacts are detailed in the EIAr dated January 2018 and sufficient assessment of the key identified issues and impacts have been completed.

b) The procedure followed for impact assessment is adequate for the decision-making process.

c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.

d) The information contained in the EIAr dated January 2018 is deemed to be accurate and credible.

e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAr and will be implemented to manage the identified environmental impacts during the construction process.

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 application is accordingly granted.