



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447 · PRETORIA · 0001 · Fedsure Building · 315 Pretorius Street · PRETORIA
Tel (+ 27 12) 310 3911 · Fax (+ 27 12) 322 2682

DEA Reference: 12/12/20/1778

Enquiries: Mahlatse Shubane

Telephone: 012-395-1781 **Fax:** 012-320-7539 **E-mail:** Mshubane@environment.gov.za

Mr. Douglas Jenman
Dorper Wind Development (Pty) Ltd
PO Box 12546
CAPE TOWN
8010

Fax no: (021) 674 0248

PER FACSIMILE / MAIL

Dear Mr Jenman

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 385, 386 AND 387: PROPOSED CONSTRUCTION OF A WIND ENERGY FACILITY AND ITS ASSOCIATED INFRASTRUCTURE ON A SITE NEAR STERKSTROOM, EASTERN CAPE PROVINCE

With reference to the abovementioned application, please be advised that the Department has decided to accept the Environmental Impact Assessment ("EIAR") dated October 2010 and received by the Department on 16 November 2010 and grant the authorisation. The environmental authorisation and reasons for the decision are attached herewith.

In terms of regulation 10(2) of the Environmental Impact Assessment Regulations, 2010, you are instructed to notify all registered interested and affected parties ("IAPs"), in writing and within twelve (12) calendar days of the date of this letter, of the Department's decision in respect of your application as well as the provisions regarding the making of appeals that are provided for in the Environmental Impact Assessment ("EIA") Regulations, 2010.

In addition, the holder of the authorisation must publish a notice –

- informing interested and affected parties of the decision;
- informing interested and affected parties where the decision can be accessed; and
- drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in the newspapers contemplated and used in terms of regulation 54(2)(c) and (d) and which newspaper was used for the placing of advertisements as part of the public participation process.

Your attention is drawn to Chapter 7 of the EIA Regulations, 2010, which regulates appeal procedures. Attached please find a simplified copy of the appeals procedure to be followed. Kindly include a copy of this procedure with the letter of notification to IAPs.

MS

A copy of the official appeal form can be obtained from: Mr TH Zwane, Senior Legal Administrator (Appeals), Tel: 012 310 3929, TZwane@environment.gov.za at the Department.

Should any party, including the applicant, wish to appeal any aspect of the decision, they or the applicant must, *inter alia*, lodge a notice of intention to appeal with the Minister, within 20 days after the date of the decision, by means of one of the following methods:

By facsimile: 012 320-7561

or

By post: Department of Environmental Affairs
Private Bag X447
Pretoria
0001

or

By hand: Fedsure Forum Building,
2nd Floor North Tower
Corner Van der Walt and Pretorius Streets
Pretoria

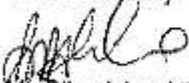
If the appellant is a person other than the applicant, the appellant must within ten (10) days of lodging the notice of intention to appeal, provide a copy of the notice to the applicant and a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.

If the applicant is the appellant, the applicant must also provide a copy of the notice of intention to appeal, within ten (10) days of having lodged such notice, to each person and organ of state which was a registered interested and affected party. The applicant must furthermore provide all the above-mentioned registered interested and affected parties with a notice indicating that the appeal submission will be made available on the day of lodging it with the Minister or MEC, and indicate where and for what period the appeal submission will be available for inspection by such person or organ of state.

Please include the Department, attention of the Director: Environmental Impact Evaluation, in the list of IAPs, notified through your notification letter of the decision, for record purposes.

The authorised activity or activities shall not commence within thirty (30) days of the date of signature of the authorisation. An appeal under section 43 of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended), does not suspend an environmental authorisation or exemption, or any provisions or conditions attached thereto, or any directive, unless the Minister, MEC or delegated organ of state directs otherwise.

Yours sincerely



Ms Sibusisiwe Hlela

ACTING CHIEF DIRECTOR: ENVIRONMENTAL IMPACT MANAGEMENT

Department of Environmental Affairs

Date: 19 May 2011

CC: Ms K. Jodas
Mr N. A. Ncube
Mr T. Zwane

Environmental Assessment Practitioner ("EAP") Fax: (021) 674 0248
Inkwanca Local Municipality Fax: (045) 967 0467
Appeals Administrators ("DEA") Fax: (012) 310 3929

APPEALS PROCEDURE IN TERMS OF CHAPTER 7 OF THE NEMA EIA REGULATIONS, 2010 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

APPLICANT	INTERESTED AND AFFECTED PARTIES (IAPs)
1. Receive notice of Environmental Authorisation (EA) from the relevant Competent Authority (CA).	1. Receive notice of Environmental Authorisation (EA) from Applicant/Consultant.
2. Within 20 days after the date of the decision, notify the relevant Appeal Authority of the intention to appeal.	2. Within 20 days of date of the decision, notify the relevant Appeal Authority of the intention to appeal.
3. The Applicant must within 10 days of having submitted the notice of intention to appeal, as indicated in 2 above, provide to each persons and organ of state who was a registered IAP- 3.1 a copy of the notice of intention to appeal; and 3.2 a notice indicating that the appeal submission will be made available on the day of lodging it with the Appeal Authority and where and for what period the appeal submission will be available for inspection by such registered IAP.	3. Appellant must within 10 days of having submitted the notice of intention to appeal, as indicated in 2 above, provide the applicant with- 3.1 a copy of the notice of intention to appeal; and 3.2 a notice indicating where and for what period the appeal submission will be available for inspection by the applicant.
4. The appeal must be submitted to the Appeal Authority within 30 days after the lapsing of the 20 days period which is allowed for the submission of the notice of intention to appeal.	4. The appeal must be submitted to the Appeal Authority within 30 days after the lapsing of the 20 days period which is allowed for the submission of the notice of intention to appeal.
5. A person or organ of state that receives notice of an appeal may submit a responding statement to the relevant Appeal Authority or designated organ of state within 30 days from the date that the appeal submission was lodged with the Appeal Authority.	5. An applicant that receives notice of an appeal may submit a responding statement to the relevant Appeal Authority or designated organ of state within 30 days from the date the appeal submission was lodged with the Appeal Authority.

NOTES:

1. An appeal against a decision must be lodged with-

- the Minister of Water and Environmental Affairs if the decision was issued by the Director-General of the Department of Environmental Affairs (or another official) acting in his/her capacity as the delegated Competent Authority;
- the Minister of Justice and Constitutional Development if the applicant is the Department of Water Affairs and the decision was issued by the Director-General of the Department of Environmental Affairs (or another official) acting in his/her capacity as the delegated Competent Authority;
- the MEC if the decision was issued by the Head of Department (or another official) acting in his/her capacity as the delegated Competent Authority; or
- the delegated organ of state where relevant.

2. An appeal lodged with-

- the Minister of Water and Environmental Affairs must be submitted to the Department of Environmental Affairs;
- the Minister of Justice and Constitutional Development must be submitted to the Department of Environmental Affairs;
- the MEC must be submitted to the provincial department responsible for environmental affairs; or
- the delegated organ of state, where relevant, must be submitted to the delegated organ of state.

3. An appeal must be-

- on an official form obtainable or published by the relevant Appeal Authority;
- accompanied by:
 - a statement setting out the grounds of appeal;
 - supporting documentation which is referred to in the appeal and is not available to the relevant Appeal Authority;
 - a statement that the appellant has complied with regulation 60 (2) or (3) has been complied with together with copies of the notices referred to in regulation 60; and
 - the prescribed appeal fee, if any.

4. A copy of the official appeal form can be obtained from:

Mr TH Zwane, Senior Legal Administrator (Appeals): Tel: 012 310 3929, TZwane@environment.gov.za

GN



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

Authorisation register number:	<i>12/12/20/1778</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>DORPER WIND FARM (PTY) LTD</i>
Location of activity:	<i>EASTERN CAPE PROVINCE: Within the Inkwanca Local Municipality</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.

SPC

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.

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, 2006 the Department hereby authorises –

DORPER WIND FARM (PTY) LTD

With the following contact details –

Mr. Douglas Jenman
Dorper Wind Farm (Pty) Ltd
P.O. Box 12546
CAPE TOWN
8010

Tel: (021) 685 5411
Fax: (021) 674 0248

to undertake the following activities (hereafter referred to as "the activities"):



R. 386:

- 1 (m): *The construction of facilities or infrastructure, including associated structures or infrastructure, for any purpose in the one in ten year flood line or 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.*
- 12: *The transformation or removal of indigenous vegetation of 3 hectares 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).*
- 14: *The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding -*
- (a) masts of 15 metres and lower exclusively used*
 - (i) by radio amateurs; or*
 - (ii) for lighting purposes*
 - (b) flag poles; and*
 - (c) Lightning conductor poles.*
- 15: *The construction of a road that is wider than 4 metres or that has a reserve wider than 6 meters, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.*
- 16: *The transformation of undeveloped, vacant or derelict land to-*
- (b) 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.*

SP

R. 387:

- 1(a): *The construction of facilities or infrastructure, including associated structures or infrastructure, for the generation of electricity where-*
- (i) the electricity output is 20 megawatts or more; or*
 - (ii) the elements of the facility cover a combined area in excess of 1 hectare.*

1 (l): *The construction of facilities or infrastructure, including associated structures or infrastructure, for the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more.*

2: *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.*

as described in the final Environmental Impact Assessment Report dated October 2010 at:

Alternative S1 (Preferred or only site alternative)	Latitude	Longitude
Preferred site of the activity	31°29'0618"S	26°31'08.26"E

for the proposed establishment of a commercial wind energy facility and associated infrastructure. The proposed facility is referred to as the Dorper Wind Energy Facility and will be located on Portion 18 of farm Spreeukloof, Portion 7 of farm Paarde Kraal, Portion 1 and 3 of the farm Uitekyk, Portion 4 of the farm No. 68, Portion 1, 2, 3, 4, 5, 6, 7 and 9 of the farm Cypher Gat, Portion 1 and 4 of the farm Tolkop and the remainder of the farm Post Houers Hoek near Sterkstroom within the Inkwanca Local Municipality in the Eastern Cape Province hereafter referred to as "the property".

The infrastructure associated with this facility includes:

- Up to 244 wind turbine units (up to 90m high steel tower and nacelle; up to 100m diameter rotor – consisting of 3 x 50m blades;
- Concrete foundations (approximately 20m x 20m x 2m) to support the turbine towers;
- Underground electrical distribution cabling between the turbines;
- Up to four substations (the largest being up to 150 x 250m) on the site in an appropriate position to receive generated power via underground distribution cabling from each wind turbine;
- Power lines (132 kV distribution lines) linking to the existing Eskom transmission grid;



- An access road to the site from the main road/s within the area;
- Internal access roads to each wind turbine to link the turbines on site (approximately 3-6m in width); and
- A workshop area for maintenance.

Conditions

1. Scope of authorisation

- 1.1 The site for the proposed Dorper Wind Energy Farm and its associated infrastructure on Portion 18 of Farm Spreeukloof, Portion 7 of Farm Paarde Kraal, Portion 1 and 3 of the Farm Uitekyk, Portion 4 of the Farm No. 68, Portion 1, 2, 3, 4, 5, 6, 7 and 9 of the Farm Cypher Gat, Portion 1 and 4 of the Farm Tolkop and the remainder of the Farm Post Houers Hoek near Sterkstroom Eastern Cape Province as indicated on the map attached in the EIAR dated October 2010 is hereby approved.
- 1.2 The proposed Dorper Wind Energy Farm is hereby approved for the footprint of approximately 132 km².
- 1.3 Authorisation of the activity/ies is subject to the conditions contained in this authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
- 1.4 The holder of the authorisation shall be 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.
- 1.5 The activities authorised may only be carried out at the properties as described above.
- 1.6 The recommendations and mitigation measures recorded in the final EIAR dated October 2010 must be adhered to.
- 1.7 Any changes to, or deviations from, the project description set out in this authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further authorisation in terms of the regulations.



- 1.8 This activity must commence within a period of three (3) years from the date of issue. 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.
- 1.9 Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.
- 1.10 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.
- 1.11 Relevant legislation that must be complied with by the holder of this authorisation includes but is not limited to:
- Compliance with the requirements of Section 38(1), (3) and (7) of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) including the comments and recommendations of the relevant heritage resources authority responsible for the area in which the development is proposed. Should any heritage resources be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped. A registered heritage specialist or professional paleontologist must be called to the site for inspection. Under no circumstances shall any heritage material be destroyed or removed from the site. The relevant heritage resource agency or the South African Heritage Resources Agency (SAHRA) must be informed about the findings within forty hours (48) hours.
 - Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).
 - National Water Act, 1998 (Act No. 36 of 1998).
 - National Forests Act, 1998 (Act No. 84 of 1998).
 - National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) and its Regulations.
 - National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) and its Regulations.
 - National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) and its Regulations.
 - Hazardous substance Act (Act No. 15 of 1973).
 - National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004).
 - Civil Aviation Act, 2009 (Act No. 13 of 2009).



- Should fill material be required for any purpose, the use of borrow pits must comply with the provisions of the Minerals and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002) administered by the Department of Mineral Resources.
- 1.12 The holder of an environmental authorisation has the responsibility to notify the competent authority of any alienation, transfer and change of ownership rights in the property on which the activity is to take place.

2. Notification of authorisation

- 2.1 The holder of the authorisation must notify every registered interested and affected party, in writing and within 10 (ten) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
- 2.2 The notification referred to must –
- 2.2.1 specify the date on which the authorisation was issued;
 - 2.2.2 inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment (EIA) Regulations, 2010;
 - 2.2.3 advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 2.2.4 give the reasons for the decision

3. Management of the activity

- 3.1 The Environmental Management Plan (EMP) submitted as part of the Application for EA must be amended and submitted to the Department for written approval prior to commencement of the activity. The recommendations and mitigation measures recorded in the EIR dated October 2010 and the conditions contained within this environmental authorisation, must be incorporated as part of the EMP. Once approved, the EMP must be implemented and adhered to.
- 3.2 Please note that this Department is compiling a guideline document on renewable energy installations. Once this guideline has been published in the Government Gazette in terms of section 24J of the National Environmental Management Act, 1999 (Act No. 107 of 1998) (NEMA), it will be expected that you adhere to the relevant sections of the guideline.



4. Monitoring

- 4.1 The applicant must appoint a suitably 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 authorisation are implemented and to ensure compliance with the provisions of the EMP.
- 4.2 The ECO shall be appointed before commencement of any authorised activity/ies.
- 4.3 Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of the Department.
- 4.4 The ECO shall keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 4.5 A detailed incident (including spillage of bitumen, fuels, chemicals, or any other material) and complaint register must be kept on site indicating how these issues were addressed, what rehabilitation measures were taken and what preventative measures were implemented to avoid re-occurrence of incidents/complaints.
- 4.6 In addition the ECO must maintain the following on site:
- A daily site diary
 - Copies of all reports submitted to the Department
 - A schedule of current site activities including the monitoring of such activities.
- 4.7 The ECO shall remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.
- 4.8 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.

5. Recording and reporting to the Department

- 5.1 All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this authorisation, must be submitted to the *Director: Compliance Monitoring* at the Department.
- 5.2 The holder of the authorisation must submit an environmental audit report to this Department upon completion of the construction and rehabilitation activities.
- 5.3 The environmental audit report must:
- 5.3.1 Be conducted by an independent environmental auditor;
 - 5.3.2 Indicate the date of the audit, the name of the auditor and the outcome of the audit;

- 5.3.3 Evaluate compliance with the requirements of the approved EMP and EA;
 - 5.3.4 Include measures to be implemented to attend to any non-compliances or degradation noted;
 - 5.3.5 Include copies of any approvals granted by other authorities relevant to the development for the reporting period; and
 - 5.3.6 Highlight any outstanding environmental issues that must be addressed, along with recommendations for ensuring these issues are appropriately addressed.
- 5.4 The audit report must be submitted prior to commencement of the operation phase of the project.

6. Commencement of the activity

- 6.1 The authorised activity/ies shall not commence within thirty (30) days of the date of signature of the authorisation.
- 6.2 The applicant must obtain Water Use Licence Authorisation (WULA) from the Department of Water Affairs (DWA) prior to the commencement of the project should the applicant impact on any wetland or water resource. The WULA must be submitted to the *Director: Environmental Impact Evaluation* at the Department.
- 6.3 The applicant must submit a final layout plan for the entire Wind Energy Facility for approval to the department before commencement of construction activities. The final layout plan must include the following:
- Turbine positions (numbered for ease of reference);
 - Foundation footprint;
 - Permanent laydown area footprint;
 - Construction period laydown footprint;
 - Internal roads indicating width (construction period width and operation period width) and with numbered sections between the other site elements which they serve (to make commenting on sections possible);
 - Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;
 - Heritage sites that will be affected by the turbines and associated infrastructure;
 - Substation(s) and/or transformer(s) sites including their entire footprint;
 - Cable routes and trench dimensions (where they are not along internal roads);



- Connection routes to the distribution/transmission network;
 - Cut and fill areas at turbine sites along roads and at substation/transformer sites indicating the expected volume of each cut and fill;
 - Borrow pits;
 - Spoil heaps (temporary for topsoil and subsoil and permanently for excess material);
 - Buildings including accommodation; and
 - All "no-go" areas
- 6.4 The applicant must appoint qualified botanical and fauna specialists to ground-truth every turbine footprint and their recommendation must form part of the final layout of the Wind Energy Facility and EMP to be submitted to the department for approval.
- 6.5 An appeal under section 43 of the National Environmental Management Act (NEMA), Act 107 of 1998 (as amended), does not suspend an environmental authorisation or exemption, or any provisions or conditions attached thereto, or any directive, unless the Minister, MEC or delegated organ of state directs otherwise.

7. Notification to authorities

- 7.1 Fourteen (14) days written notice must be given to the Department that the activity will commence. 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. This notification period may coincide with the period contemplated in 6.1 above.

8. Operation of the activity

- 8.1 Fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.
- 8.2 The applicant must compile an operational EMP for the operational phase of the activity or alternatively, if the applicant has an existing operational environmental management system, it must be amended to include the operation of the authorised activity.



9. Site closure and decommissioning

- 9.1 Should the activity ever cease or become redundant, the applicant shall 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.

10. Specific conditions

10.1 Fauna, avifauna and bats

- 10.1.1 A bird and bat site specific monitoring programme must be developed by an expert ornithologist.
- 10.1.2 The bird/bat 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.
- 10.1.3 The results of the pre-construction bird monitoring programme must inform the final layout and the construction schedule of the wind energy facility.
- 10.1.4 Ongoing, long term monitoring must be conducted on site after the facility is operational.
- 10.1.5 Reports regarding bird monitoring must be submitted to the Eastern Cape Department of Economic Development and Environmental Affairs (DEDEA), Birdlife South Africa, the Endangered Wildlife Trust (EWT) and this Department on a quarterly basis. The report will assist all stakeholders in identifying potential and additional mitigation measures and to establish protocols for a standard bird monitoring programme for wind energy development in the country.
- 10.1.6 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.
- 10.1.7 Damaged vegetation must be rehabilitated to minimise the habitat losses to resident bird species.
- 10.1.8 The turbines must not be placed on the leading edge of ridges as this is a prime area that birds use to move along depending on the direction.
- 10.1.9 Should the potential impacts on birds be shown to be unacceptably high, bird deterrent measures must be implemented to reduce the impacts to acceptable levels.



- 10.1.10 Anti-collision devices such as bird flappers must be installed where power lines cross avifaunal corridors according to Eskom Transmission Guidelines. 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.
- 10.1.11 The applicant must ensure that lighting on the turbines is kept to a minimum, and is coloured (red or green) and intermittent, rather than permanent and white, to reduce confusion effects for nocturnal migrants.
- 10.1.12 The facility must be designed to discourage their use as perching or roosting substrates by birds and bats.
- 10.1.13 Faunal species must not be trapped, killed or hunted during the construction phase.

10.2 Vegetation, wetlands and water resources

- 10.2.1 All species of special concern (SSC) must be identified and every effort must be made to rescue them.
- 10.2.2 Critical available biodiversity information must be consulted for the final placement of turbines and infrastructure.
- 10.2.3 The applicant must ensure that continuous monitoring and removal of alien plant 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.
- 10.2.4 Habitat destruction must be kept to an absolute minimum by keeping the laydown areas as small as possible, reducing the number and size/length of roads and reducing the final extent of the developed area.
- 10.2.5 An alien removal program must be implemented to remove alien vegetation from within the development footprint and should run concurrently with construction activities.
- 10.2.6 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.
- 10.2.7 A "Plant Rescue and Protection" plan which allows for the maximum transplant of conservation important species from areas to be transformed must be compiled by a vegetation specialist familiar with the site in consultation with the ECO. This plan must be implemented prior to commencement of the construction phase.



- 10.2.8 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.
- 10.2.9 Construction activities must be restricted to demarcated areas to restrict impacts on fauna, avifauna and flora.
- 10.2.10 A habitat rehabilitation plan must be developed for the site. 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.
- 10.2.11 All electrical collector lines must be buried in a manner that minimizes additional surface disturbance.
- 10.2.12 Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
- 10.2.13 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.
- 10.2.14 All hard infrastructures should be located within existing areas of low sensitivity, as far as possible.
- 10.2.15 All turbine and infrastructure must be located at least 100m from the edge of any high sensitive areas.
- 10.2.16 No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
- 10.2.17 No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water Affairs.
- 10.2.18 Appropriate erosion mitigation must be implemented to prevent any potential erosion.
- 10.2.19 Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but should be temporarily stored in a demarcated area.
- 10.2.20 Removal of alien invasive species or other vegetation must be in accordance with the Conservation of Agricultural Resources Act (Act 43 of 1983), and follow-up procedures for the duration of the project.
- 10.2.21 Bridge design must be such that it minimise impact to the riparian areas with minimal alterations to water flow and must be permeable to movement of fauna and flora.



- 10.2.22 The applicant must ensure that all the "No- go" areas are clearly demarcated (using fencing and appropriate signage) before construction commences.
- 10.2.23 Contractors and construction workers must be clearly informed of the no-go areas.
- 10.2.24 Siting of turbines should adhere to >500m setbacks from large water bodies, riparian vegetation and rocky crevices, if and where high bat occurrence is found after monitoring.

10.3 Roads and transportation

- 10.3.1 Existing road infrastructure must be used as far as possible for providing access to 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.
- 10.3.2 A transportation plan must be developed, particularly for the transport of turbine components, main assembly cranes and other large pieces of equipment. A permit must be obtained from the relevant transport department for the transportation of all components (abnormal loads) to the sites.
- 10.3.3 A traffic management plan must be prepared for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted.
- 10.3.4 Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuter, consideration should be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
- 10.3.5 Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
- 10.3.6 Internal access roads must be located away from drainage bottoms and avoid wetlands, if feasible.
- 10.3.7 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.
- 10.3.8 Existing drainage must not be altered, especially in sensitive areas.
- 10.3.9 A designated access to the site must be created and clearly marked to ensure safe entry and exit.



10.3.10 Signage must be erected at appropriate points warning of turning traffic and the construction site.

10.4 Noise

- 10.4.1 Construction staff must be trained in actions to minimise noise impacts.
- 10.4.2 Noise from the turbines at the identified noise sensitive areas must be less than the 45dB(A) limit for rural areas presented in SANS10103.
- 10.4.3 The applicant must ensure that the National Noise Control Regulations and SANS10103:2008 are adhered to and reasonable measures to limit noise from the work site are implemented.
- 10.4.4 The applicant must ensure that the construction staff working in areas where the 8-hour ambient noise levels exceed 75dBA must wear ear protection equipment.
- 10.4.5 The applicant must ensure that all equipment and machinery are well maintained and equipped with silencers.
- 10.4.6 The applicant must provide a prior warning to the community when a noisy activity is to take place.

10.5 Visual Resources

- 10.5.1 The applicant must ensure to reduce visual impact 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.
- 10.5.2 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.
- 10.5.3 Commercial messages and graffiti on turbines must be avoided.
- 10.5.4 The applicant must ensure that painting of the wind turbines are in accordance with the Aviation Act, 1962, Thirteenth Amendment of the Civil Aviation Regulations, 1997.
- 10.5.5 Laydown areas and stockyards should be located in low visibility areas (e.g. valleys between ridges) and existing vegetation should be minimised to screen them from view where possible.
- 10.5.6 Construction activities must be restricted to daylight hours in order to negate or reduce visual impacts associated with lighting.
- 10.5.7 Wind turbines must be painted in a bird deterrent colour.



10.6 Human Health and Safety

- 10.6.1 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 of wind turbine generators.
- 10.6.2 Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
- 10.6.3 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.
- 10.6.4 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.
- 10.6.5 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.
- 10.6.6 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.
- 10.6.7 No open fires for cooking or heating must be allowed on site.

10.7 Hazardous Materials and Waste Management

- 10.7.1 Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
- 10.7.2 Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
- 10.7.3 Hazardous waste such as bitumen, oils, oily rags, paint tins etc must be disposed of at an approved hazardous waste landfill site.



- 10.7.4 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.
- 10.7.5 Streams, river, pans, wetlands, dams and their catchments must be protected from erosion, direct or indirect spillage of pollutants.
- 10.7.6 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.
- 10.7.7 Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
- 10.7.8 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.
- 10.7.9 Temporary bunds must be constructed around chemical storage to contain possible spills.
- 10.7.10 The use of generators on site must include the use of drip trays.
- 10.7.11 Spill kits must be made available on-site for the clean-up of spills.
- 10.7.12 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).
- 10.7.13 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/permitted waste site and must be removed from the site when construction phase is completed.
- 10.7.14 Concrete mixing on site during construction (if mixed on the ground) must be conducted on plastic sheeting in order to avoid permanent soil contamination and to facilitate cleanup of the site.



10.8 Excavation and blasting activities

- 10.8.1 Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
- 10.8.2 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.
- 10.8.3 Borrow materials must be obtained only from authorized and permitted sites.
- 10.8.4 Anti-erosion measures such as silt fences must be installed in disturbed areas.

10.9 Air Emissions

- 10.1.1 Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
- 10.9.1 Appropriate dust suppression techniques must be implemented on all exposed surfaces against wind. Such measures may include wet suppression, chemical stabilisation, use of wind fences, shade netting, covering surfaces with straw chippings and re-vegetation of open areas.

10.10 Historical / paleontological resources

- 10.10.1 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.
- 10.10.2 Should any graves be found, all construction activities must be suspended and an archaeologist be immediately contacted. The discovered graves must be cordoned off.

10.11 Storm water

- 10.11.1 A comprehensive storm water management plan must be developed for the site to ensure compliance with applicable regulation and prevent off-site migration of contaminated storm water or increased soil erosion. The storm water management plan should form part of the EMP.

SD

10.11.2 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.

10.12 Turbines

10.13.1 Turbines must be positioned in such a way that they are at least 500m away from farm complexes.

10.13.2 Turbines must be positioned in such a way that shadow flicker does not affect any farm complexes.

10.13.3 The applicant must ensure that the placement of turbine on ridges is avoided.

10.13.4 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.

10.13 Overhead power line

10.13.1 A walk-through survey of the final survey power line corridor must be undertaken by a botanical specialist, an ornithologist and a heritage specialist to identify areas where mitigation may be required.

10.13.2 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.

11. General

11.1 A copy of this authorisation must be kept at the property where the activity/ies will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertakes work at the property.

Enp

- 11.2 Where any of the applicant's contact details change, including the name of the responsible person, the physical or postal address and/or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.
- 11.3 The holder of the authorisation must notify the Department, in writing and within 48 (forty eight) hours, if any condition of this authorisation cannot be or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance. Non-compliance with a condition of this authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the regulations.
- 11.4 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 applicant or his 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 applicant 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: 19 May 2011



Ms Sibusisiwe Hlela

ACTING CHIEF DIRECTOR: ENVIRONMENTAL IMPACT MANAGEMENT

Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Background

The applicant, Dorper Wind Development (Pty) Ltd applied for the following activities:

R. 386:

- 1 (m): *The construction of facilities or infrastructure, including associated structures or infrastructure, for any purpose in the one in ten year flood line or 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.*
- 12: *The transformation or removal of indigenous vegetation of 3 hectares 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).*
- 14: *The construction of masts of any material or type and of any height, including those used for telecommunication broadcasting and radio transmission, but excluding –*
 - (a) *masts of 15 metres and lower exclusively used*
 - (i) *by radio amateurs; or*
 - (ii) *for lighting purposes*
 - (b) *flag poles; and*
 - (c) *Lightning conductor poles.*

- 15: *The construction of a road that is wider than 4 metres or that has a reserve wider than 6 meters, excluding roads that fall within the ambit of another listed activity or which are access roads of less than 30 metres long.*
- 16: *The transformation of undeveloped, vacant or derelict land to-*
(b) 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.

R. 387:

- 1(a): *The construction of facilities or infrastructure, including associated structures or infrastructure, for the generation of electricity where-*
(i) the electricity output is 20 megawatts or more; or
(ii) the elements of the facility cover a combined area in excess of 1 hectare.
- 1(l): *The construction of facilities or infrastructure, including associated structures or infrastructure, for the transmission and distribution of above ground electricity with a capacity of 120 kilovolts or more.*
- 2: *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.*

for the proposed Dorper Wind Energy Farm and its associated infrastructure located on Portion 18 of Farm Spreeukloof, Portion 7 of Farm Paarde Kraal, Portion 1 and 3 of the Farm Uitekyk, Portion 4 of the Farm No. 68, Portion 1, 2, 3, 4, 5, 6, 7 and 9 of the Farm Cypher Gat, Portion 1 and 4 of the Farm Tolkop and the remainder of the Farm Post Houers Hoek near Sterkstroom Eastern Cape Province as indicated on the map attached in the EIAR dated October 2010.

The applicant, Dorper Wind Development (Pty) Ltd appointed Savannah Environmental Consultants (Pty) Ltd 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 EIAR dated October 2010;
- b) The comments received from the Department of Economic Development, Tourism and Environment, organs of state and interested and affected parties as included in the EIAR dated October 2010;
- c) Mitigation measures as proposed in the EIAR dated October 2010 and the EMP;
- d) The information contained in the specialist studies contained within the EIAR dated October 2010.
- e) 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 the most significance is set out below.

- a) Details provided of the qualifications of the EAP indicate that the EAP is competent to carry out the environmental impact assessment procedures.
- b) The findings of all the specialist studies conducted and their recommended mitigation measures.
- c) The need for the proposed project development.
- d) The EIAR dated October 2010 included a 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 October 2010 identified all legislation and guidelines that have been considered in the preparation of the EIAR dated October 2010.
- f) The methodology used in assessing the potential impacts identified in the EIAR dated October 2010 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, 2006 for public involvement.

