environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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NEAS Reference:DEAT/EIA/5954/2009
DEA Reference: 12/12/20/1585
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PER FACSIMILE / MAIL

Dear Mr Riboud

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R.386/387: ESTABLISHMENT OF A WIND ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE ON A SITE NEAR OYSTER BAY, KOUGA LOCAL MUNICIPALITY WITHIN THE CACADU DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE

With reference to the above application, please be advised that the Department has decided to accept the final EIR dated November 2011 and grant authorisation. The environmental authorisation (EA) and reasons for the decision are attached herewith.

Activities applied for as listed in GN R.386, items 13 and 15, are no longer listed in terms of the new Regulations, 2010 and is thus not authorised.

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.

Your attention is drawn to Chapter 7 of the Regulations, which prescribes the appeal procedure to be followed. This procedure is summarised in the attached document. Kindly include a copy of this document with the letter of notification to interested and affected parties.

Should the applicant or any other party wish to appeal any aspect of the decision a notice of intention to appeal must be lodged by all prospective appellants with the Minister, within 20 days of the date of the EA, by means of one of the following methods:

By facsimile: 012 320 7561;
By post: Private Bag X447,
Pretoria, 0001; or
By hand: 2nd Floor, Fedsure Building, North Tower,
Cnr. Van der Walt and Pretorius Streets,
Pretoria.

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

Please include the Department *(Attention: Director: Environmental Impact Evaluation)* in the list of interested and affected parties, notified through your notification letter to interested and affected parties, for record purposes.

Appeals must be submitted in writing to:

Mr T Zwane, Senior Legal Administration Officer (Appeals) of this Department at the above mentioned addresses or fax number. Mr Zwane can also be contacted at:

Tel: 012-310-3929
Email: tzwane@environment.gov.za

The authorised activity/ies shall not commence within twenty (20) days of the date of signature of the authorisation. Further, please note that the Minister may, on receipt of appeals against the authorisation or conditions thereof suspend the authorisation pending the outcome of the appeals procedure.

Yours sincerely

Mr Ishaam Abader
Deputy Director-General: Environmental Quality and Protection
Department of Environmental Affairs
Date: 8/05/2012

CC:	Ms K Jodas	Savannah Environmental (Pty) Ltd	Tel:011-234-6621	Fax:086-684-0547
	Dr EM Rankwana	Kouga Municipality	Tel: 042-200-2200	Fax:042-293-1114
	Mr T Zwane	Appeals Authority (DEA)	Tel: 012-310-3929	Fax: 012-320-7561

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 against a decision must be lodged with:-**
   a) 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;
   b) 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;

2. **An appeal lodged with:-**
   a) the Minister of Water and Environmental Affairs must be submitted to the Department of Environmental Affairs;
   b) the Minister of Justice and Constitutional Development must be submitted to the Department of Environmental Affairs;

3. **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.

environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of regulation 37 of the Environmental Impact Assessment Regulations, 2006

Establishment of a Wind Energy Facility and associated infrastructure on a site near Oyster Bay

Cacadu District Municipality

Authorisation register number:	*12/12/20/1585*
NEAS reference number:	*DEA/EIA/5945/2009*
Last amended:	*First issue*
Holder of authorisation:	*RENEWABLE ENERGY SYSTEMS (RES) SOUTH AFRICA (PTY) LTD*
Location of activity:	*EASTERN CAPE PROVINCE: Within the Kouga Local Municipality*

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 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 107 of 1998) and the Environmental Impact Assessment Regulations, 2006 the Department hereby authorises

RENEWABLE ENERGY SYSTEMS (RES) SOUTH AFRICA (PTY) LTD

with the following contact details –

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

GN R.386:

Item 7: *The above ground storage of a dangerous good, including petrol, diesel, liquid petroleum gas or paraffin, in containers with a combined capacity of more than 30 cubic metres and less than 1000 cubic metres at any one location or site.*

Item 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).*

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

GN R. 387:

Item 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;*

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

Item 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 Environmental Impact Assessment Report (EIAR) dated November 2011at:

Site Centroid	24.65136	-34.11485	24°39'4.9"	-34°6'53.5"
Substation (South)	24.67443	-34.11802	24°40'28"	-34°7'4.9"
Start of Grid Corridor	24.67443	-34.11802	24°40'28"	-34°7'4.9"
Middle of Grid Corridor	24.78271	-34.08838	24°46'57.8"	-34°5'18.2"
End of Grid Corridor	24.78532	-34.00127	24°47'7.2"	-34°0'4.6"

- for the establishment of a Wind Energy Facility and its associated infrastructure on a site near Oyster Bay, consisting of 62wind turbines, with each turbine being between 1.8MW and 3MW in capacity. The proposed development is located on Portion 3 of Farm Klein River 713; Portion 1, 2, 3, and 4, and the Remainder of Farm Rebok Rant 715; Portion 1 and 3 of Farm Ou Werf 738; Portion 5 of Farm Klipperdrift 732; and Portion 10 and 12 of Farm Kruis Fontein 681 withinthe Kouga Local Municipality of the Cacadu District Municipality in the Eastern Cape Province, hereafter referred to as "the property".

The infrastructure associated with this facility includes:

- 62 wind turbines with a generation capacity of up to 160MW with each turbine being between 1.8MW and 3MW in capacity.
- Each wind turbine is expected to consist of a concrete foundation, a steel tower, a hub (between 80m and 120m above ground level, depending on the turbine size decided upon) and three blades between 45 to 55m long attached to the hub.
- A possible small transformer outside each turbine tower, depending on the type of turbine deemed most suitable for the site. Such a transformer would have its own foundation and housing around it.
- Crane handstanding area (approximately 60 x 40m depending on the type of crane choice and geotechnical considerations).
- Cabling between the components, laid approximately 1m underground where feasible.
- Internal roads (approximately 5-6 m in width) linking the wind turbines and the other infrastructure on the site.
- An onsite sub-station to facilitate the connection between the facility and the grid. The proposed sub-station will have a High Voltage (HV) yard of approximately 120 x 120m.
- A new 132kv overhead power line to connect to Eskom's existing Melkhout (132kV) Sub-station.

- Workshop area for control, maintenance and storage (approximately 20 x 40m depending on turbine choice)

Conditions

Scope of authorisation

1. The construction of 62 commercial wind turbines with a maximum generation capacity of 160MW (with each turbine being between 1.8MW and 3MW) on a site that is 23km² in extent which is located on Portion 3 of Farm Klein River 713, Portion 1,2,3,4 and Remainder of Farm Rebok Rant 715, Portion 1 and 3 of Farm Ou Werf 738, Portion 5 of Farm Klipperdrift 732 andPortion 10 and 12 of Farm KruisFontein 681 is approved.
2. The southern sub-station site (KromRivier Intake/ Switching station) and the eastern corridor for the power line are approved.
3. The entrance on the north-west side of the site (along the R102 and then south east along the DR01765), a distance of approximately 23km from the N2 must be used for entrance to the site and access for all delivery vehicles.
4. Authorisation of the activity 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.
5. 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.
6. The activities authorised may only be carried out at the property as described above.
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.
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.

9. Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.
10. 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.

Notification of authorisation

11. 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.
12. The notification referred to must –
    12.1. specify the date on which the authorisation was issued;
    12.2. inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment (EIA) Regulations, 2010;
    12.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
    12.4. give the reasons for the decision.

Management of the activity

13. A copy of the final site layout plan must be submitted to the Department for written approval prior to the commencement of the activity. All available biodiversity information must be used in the finalisation of the layout plan. Existing infrastructure must be used as far as possible e.g. roads. The layout plan must indicate the following:
    13.1 Turbine positions;
    13.2 Foundation footprint;
    13.3 Permanent laydown area footprint;
    13.4 Construction period laydown footprint;
    13.5 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);
    13.6 Wetlands, drainage lines, rivers, stream and water crossing of roads and cables indicating the type of bridging structures that will be used;

13.7 Heritage sites that will be affected by the turbines and associated infrastructure;

13.8 Sub-station(s) and/or transformer(s) sites including their entire footprint;

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

13.10 Connection routes (including pylon positions) to the distribution/transmission network;

13.11 Cut and fill areas at turbine sites along roads and at sub-station/transformer sites indicating the expected volume of each cut and fill;

13.12 Borrow pits;

13.13 Spoil heaps (temporary for topsoil and subsoil and permanently for excess material);

13.14 All existing infrastructure on the site, especially roads;

13.15 Buildings including accommodation; and

13.16 All "no-go" areas.

14. A map combining the final layout plan must also be superimposed (overlain) on an environmental sensitivity map to be submitted to the department.

15. The Environmental Management Plan (EMP) submitted as part of the application for environmental authorisation must be amended and submitted to the Department for written approval prior to commencement of the activity.

16. The EMP amendment must include the following:

16.1. All recommendations and mitigation measures recorded in the EIR dated November 2011.

16.2. The requirements and conditions of this authorisation.

16.3. 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.

16.4. An open space management plan to be implemented during construction and operation of the facility.

16.5. A re-vegetation and habitat rehabilitation plan to be implemented during 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.

16.6. An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.

16.7. A Storm Water Management Plan to be implemented during construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.

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

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

16.10. A transportation plan for the transport of turbine components, main assembly cranes and other large pieces of equipment.

16.11. A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimise 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.

16.12. An avifauna and bat monitoring programme to document the effect of the operation of the energy facility on avifauna and bats. This must be compiled by a qualified specialist.

16.13. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from the direct or indirect spillage of pollutants.

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

17. The approved EMP must be implemented and strictly enforced during all phases of the project. It must be seen as a dynamic document and must be included in all contract documentation for all phases of the development, when approved.

18. Changes to the EMP, which are environmental defendable, must be submitted to this Department for acceptance before such changes can be affected.

19. The Department reserves the right to request amendments to the EMP should any impacts that were not anticipated or covered in the EIR be discovered.
20. The holder of this authorisation must appoint qualified vegetation, fauna, flora, heritage and avifauna specialists to ground-truth every infrastructure footprint and their recommendation must inform the final layout of the facility and the EMP to be submitted to the Department for approval.

Environmental Control Officer (ECO) and duties

21. The holder of this authorisation must appoint an independent Environmental Control Officer (ECO) with experience or expertise in the field for the construction phase of the development. The ECO will have the responsibility to ensure that the conditions referred to in this authorisation are implemented and to ensure compliance with the provisions of the EMP.
22. The ECO must be appointed before commencement of any authorised activity.
23. Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of the Department.
24. The ECO must remain employed until all rehabilitation measures, as required for implementation due to the construction damage, are completed and the site is ready for operation.
25. The ECO must:
    - 25.1 Keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
    - 25.2 Keep and maintain a detailed incident (including spillage of bitumen, fuels, chemicals, or any other material) and complaint register 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.
    - 25.3 Keep and maintain a daily site diary.
    - 25.4 Keep copies of all reports submitted to the Department.
    - 25.5 Keep and maintain a schedule of current site activities including the monitoring of such activities.
    - 25.6 Obtain and keep record of all documentation, permits, licenses, and authorisations such as waste disposal certificates, hazardous waste landfill site licenses etc. Required by this facility.
    - 25.7 Compile a monthly monitoring report.

Recording and reporting to the Department

26. The holder of this authorisation must keep all records relating to monitoring and auditing on site and make it available for inspection to any relevant and competent authority in respect of this development.
27. 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.

Environmental audit report

28. The holder of the authorisation must submit an environmental audit report to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and within 30 days of completion of rehabilitation activities.
29. The environmental audit report must:
    - 29.1 Be compiled by an independent environmental auditor;
    - 29.2 Indicate the date of the audit, the name of the auditor and the outcome of the audit;
    - 29.3 Evaluate compliance with the requirements of the approved EMP and this environmental authorisation;
    - 29.4 Include measures to be implemented to attend to any non-compliances or degradation noted;
    - 29.5 Include copies of any approvals granted by other authorities relevant to the development for the reporting period;
    - 29.6 Highlight any outstanding environmental issues that must be addressed, along with recommendations for ensuring these issues are appropriately addressed;
    - 29.7 Include a copy of this authorisation and approved EMP;
    - 29.8 Include all documentation such as waste disposal certificates, hazardous waste landfill site licenses etc. pertaining to this authorisation; and
    - 29.9 Include evidence of adherence to the conditions of this authorisation and the EMP where relevant such as training records and attendance records.

Commencement of the activity

30. The authorised activity shall not commence within twenty (20) days of the date of signature of the authorisation.
31. 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.
32. The holder of this authorisation must obtain a Water Use Licence from the Department of Water Affairs (DWA) prior to the commencement of the project should the applicant impact on any wetland or water resource. A copy of the license must be submitted to the Director: Environmental Impact Evaluation at the Department.

Notification to authorities

33. 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 notice of intent to appeal period.

Operation of the activity

34. Fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.
35. The holder of this authorisation 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.

Site closure and decommissioning

36. 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.

Specific conditions

Authorised turbines

37. 62 Turbines are authorised for the Wind Energy Facility near Oyster Bay.
38. Turbine 1 must be removed from agricultural land which has a pivoted irrigation system.
39. Turbines 24, 30, 49 and 63 must be removed from areas of high soil/ land use sensitivity.
40. Turbines 6, 29, 36, 44, 47, 58, 59, 69, 70 and 71 have been removed from the layout, therefore these turbines are not authorised as they were located within wetlands and also to reduce the visual impact on the Thysbaai cultural landscape / heritage site.
41. Turbines 4, 13, 25, 30, 39, 42, 49, 60, 62, 63, 64 and 74 must be situated 50m away from wetland areas.
42. Turbines must be positioned in such a way that shadow flicker does not affect any farm and residential buildings.
43. Substation design must make use of low profile construction technology to mitigate visual impact on the surrounding area.

Avifauna and bats

44. The bird and bat monitoring programme must be implemented to document the effect of the operation of the energy facility on avifauna and bats. This shall commence prior to construction, and continue during operation of the energy facility.
45. The results of the pre-construction bird monitoring programme must inform the final layout and the construction schedule of the energy facility.
46. 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 and to establish protocols for a bird monitoring programme for wind energy development in the country.
47. The data collected and documented during the pre-construction operational monitoring must be shared with the EWTand Birdlife South Africa for a better understanding of the distribution or breeding behaviour of any of the priority species.

48. 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 Guidelines.
49. A lighting engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce the impacts associated with glare and light trespass. Confirmation of the input of the lighting engineer must be included in the final site layout plan.
50. Night lighting must be restricted to only what is required for the safe and efficient management of the activity.
51. Lighting for both the construction period and through the operation of the facility must be of the low pressure sodium type. All perimeter and security lighting must be attached to motion detectors.
52. Lighting on the turbines must be kept to a minimum and must be coloured (red or green) and intermittent, rather than permanent and white, to reduce confusion effects for nocturnal migrants.
53. Turbines must be located at least 300m away from any water bodies on site to reduce the risk of collision/barotrauma, furthermore, turbines must be located at least 200m from structures such as buildings that may provide roosts.
54. The 132kV overhead power line must be marked with Double Loop Bird Flight Diverters on the earth wire of the line; these must be five metres (5m) apart and alternate from black to white.

Vegetation, wetlands and water resources

55. Vegetation clearing must be limited to the authorised footprint.
56. 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.
57. Comprehensive search and rescue must be conducted for threatened and near threatened plant and animal species as well as individuals of protected trees within the footprint of the proposed development prior to commencement of any construction activities. For plants the said search and rescue must be undertaken during the appropriate season and if any animals or plants are found, localised modifications in the position of infrastructure must be made to avoid such populations. A suitable buffer zone must be created.

58. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
59. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken as early as possible on disturbed areas.
60. All electrical collector lines must be buried in a manner that minimizes additional surface disturbance.
61. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
62. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.
63. No activities will be allowed to encroach into a water resource without a water use license being in place from the Department of Water Affairs.
64. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
65. 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).
66. The holder of this authorisation must ensure that all the "No-go" areas are clearly demarcated (using fencing and appropriate signage) before construction commences.
67. Contractors and construction workers must be clearly informed of the no-go areas.
68. Siting of turbines shall adhere to >500m setbacks from large water bodies, riparian vegetation and rocky crevices, if and where high bat occurrence is found after monitoring.
69. 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.
70. 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.
71. Turbine 4, 25, 30, 13, 39, 42, 49, 60, 62 must be relocated at least 50m outside the outer edge of wetlands in terms of the National Water Act, 107.
72. Turbine 1 must be removed from the agricultural land that has pivoted irrigation system.
73. Turbine 24, 30, 49 and 63 must be removed / relocated from areas of high soil / land use sensitivity.

Roads and transportation

74. A permit must be obtained from the relevant transport department for the transportation of all components (abnormal loads) to the sites. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information.
75. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
76. All structures crossing steams must be located and constructed so that they do not decrease channel stability or increase water velocity.
77. Existing drainage must not be altered, especially in sensitive areas.
78. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
79. Signage must be erected at appropriate points warning of turning traffic and the construction site.
80. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.

Noise

81. Construction staff must be trained in actions to minimise noise impacts.
82. 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.
83. 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.
84. The holder of this authorisation must ensure that all equipment and machinery are well maintained and equipped with silencers.
85. The holder of this authorisation must provide a prior warning to the community when a noisy activity e.g. blasting is to take place.
86. All noisy construction operations should only occur during daylight hours.
87. All wind turbines must 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.

88. 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 a noise specialist, in order to ensure that the predicted noise levels are less than 45dB(A).

Visual resources

89. 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.
90. All turbines must be located 500m from the nearest inhabited homestead or settlements
91. Signage on or near wind turbines must be avoided unless they serve to inform the public about wind turbines and their function.
92. Commercial messages and graffiti on turbines must be avoided.
93. The paint used on the blades and tower of the turbines must be selected to reduce blade glint

Human health and safety

94. A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the energy facility. The programme must establish a safety zone for wind turbines from residences and occupied buildings, roads, right-of-ways and other public access areas that is sufficient to prevent accidents resulting from the operation of the wind turbines.
95. Potentials interference with public safety communication systems (e.g. radio traffic related to emergency activities) must be avoided.
96. The holder of this authorisation 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 regulations.
97. The holder of this authorisation must obtain approval from the South Africa Civil Aviation Authority that the wind facility will not interfere with the performance of aerodrome radio Communication, Navigation and Surveillance (CNS) equipment, especially the radar, prior to commencement of the activity. The approval must be submitted to the *Director: Environmental Impact Evaluation*.
98. The holder of this authorisation must obtain approval from the South Africa Weather Services (WeatherSA) that the energy facility will not interfere with the performance of their equipment

especially radar, prior to commencement of the activity. The approval must be submitted to the *Director: Environmental Impact Evaluation.*

99. The holder of this authorisation must train safety representatives, managers and workers in workplace safety. The construction process must be compliant with all safety and health measures as prescribed by the relevant act.
100. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities. If possible, construction should be scheduled to take place within the post-harvest and pre-planting season, when fields are lying fallow.
101. No open fires for cooking or heating must be allowed on site.

Hazardous materials and waste management

102. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
103. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
104. Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved hazardous waste landfill site licensed to accept such waste.
105. No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.
106. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
107. Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored nor may any vehicle maintenance occur within 350m of the temporal zone of wetlands, a drainage line with or without an extensive floodplain or hillside wetlands.
108. Temporary bunds must be constructed around chemical storage to contain possible spills.
109. Spill kits must be made available on-site for the clean-up of spills.
110. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, 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 59 of 2008).

111. Temporary ablution facilities must be provided for staff during the construction phase. The ablutions must be cleaned regularly with associated waste being disposed of at a registered/permitted waste site or waste water treatment plant, and must be removed from the site when the construction phase is completed.

Excavation and blasting activities

112. Underground cables and internal access roads must be aligned where feasible along existing infrastructure to limit damage to vegetation and watercourses.
113. 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.
114. Borrow materials must be obtained only from authorized and permitted sites.
115. Anti-erosion measures such as silt fences must be installed in disturbed areas.

Air emissions

116. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
117. 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 wind fences, covering surfaces with straw chippings and re-vegetation of open areas.

Historical / cultural / paleontological resources

118. If there are any changes to the layout of the turbines from the approved layout plan, 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.
119. Should any graves be found, all construction activities must be suspended and an archaeologist be contacted immediately. The discovered graves must be cordoned off.
120. The ECO must monitor all substantial bedrock excavation for fossil remains. Should fossil remains be exposed during developments, the ECO should alert the South African Heritage Resources Agency (SAHRA) so that appropriate mitigation measures are considered.

121. Turbine 60 must be constructed further inland beyond the 5 kilometre boundary to reduce visual impact on the Thysbaai cultural landscape and turbines 58, 69, 70, 71 must be removed from the final layout in line with recommendations by the heritage specialist to reduce visual impact on the Thysbaai cultural landscape.
122. Excavations into fresh bedrock of the Cedarberg Formation, Baviaanskloof Formation & Lower Bokkeveld Group on the Eastern Corridor must be monitored by a professional palaeontologist.
123. All fossil specimen collected must be curated at an approved repository. A final technical report on the palaeontological heritage within the study area must be submitted by the contracted palaeontologist to SAHRA.

General

124. A copy of this authorisation and the approved EMPrmust be kept at the property where the activity will be undertaken. The authorisation must be provided 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.
125. The holder of the authorisation must notify both the Director: Environmental Impact Evaluation and the Director: Compliance Monitoring at 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.
126. 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 this authorisation 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 holder 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: 8 MAY 2012

Mr Ishaam Abader
Deputy Director-General: Environmental Quality and Protection
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 information contained in the EIR dated November 2011;
b) The comments received from Organs of State and interested and affected parties as included in the EIR dated November 2011;
c) Mitigation measures as proposed in the EIR dated November 2011 and the EMP;
d) The information contained in the specialist studies in the EIR dated November 2011;
e) The findings of the site visit conducted on 06 February 2012; and
f) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the National Environmental Management Act, 1998 (Act 107 of 1998).

2. Key factors considered in making the decision

All information presented to the Department was taken into account in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

a) The findings of all the specialist studies conducted, identified issues and recommended mitigation measures which were deemed to be acceptable.
b) Comments received from components within the Department (Biodiversity and Planning) as well as a site visit conducted by officials of the Department, Applicant and Consultant on 06 February 2012.
c) The need for the proposed project stems from the need for clean and renewable energy sources to reduce the country's energy supply problems.
d) The EIR dated November 2011 identified all legislation and guidelines that have been considered in the preparation of the EIR dated November 2011.
e) The methodology used in assessing the potential impacts identified in the EIR dated November 2011 and the specialist studies have been adequately indicated.

f) A sufficient public participation process was undertaken and the holder of this authorisation has satisfied the minimum requirements as prescribed in the EIA Regulations, 2006 for public involvement.

g) Where additional studies/monitoring were identified, these have been included in the EMP which must be approved before construction can continue.

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 EIR dated November 2011 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) Turbines have been reduced from 77 to 62 due to relocation and removal of turbines to mitigate against negative impacts on the receiving environment.

e) Turbines 6, 29, 36, 44, 47, 58, 59, 70 were removed from the layout as they were previously located on wetlands.

f) Turbines 4, 25, 30, 13, 39, 42, 49, 60, 62, 63, 64, and 74 have been relocated at least 50m outside the outside the outer edge of wetlands in terms of the National Water Act, 107.

g) Turbine 1 has been removed from the agricultural land which has a pivoted irrigation system.

h) The following turbines were removed/relocated from areas of high soil/land use sensitivity (6, 24, 29, 30, 36, 44, 49, 59 and 63).

i) Turbine 58, 69, 70 and 71 have been removed from the layout in line with the recommendations by the heritage specialist due to the Thyspunt cultural landscape/heritage site to reduce visual impact.

j) From the information contained in the EIR dated November 2011 there are no environmental fatal flaws that could prevent the proposed facility and associated infrastructure from proceeding on the identified site, provided that the recommended mitigation measures are implemented.

k) EMP measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIR 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.