



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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NEAS Ref: DEA/EIA/0001919/2013

DEA Reference: 14/12/16/3/3/2/559

Enquiries: Mr Jay-Jay Mpelane

Telephone: (012) 310 3004 Fax: (012) 320 7539 E-mail: jmpelane@environment.gov.za

Mr Dick Berlijn
Bokamoso Energy (Pty) Ltd
2nd Floor West Tower
Maude Street
Nelson Mandela Square
SANDTON
2196

Telephone Number: (074) 248 8488
Fax Number: (086) 273 1614

PER FACSIMILE / MAIL

Dear Mr Berlijn

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN.R.543/544/545/546 FOR THE PROPOSED BOKAMOSO PHOTOVOLTAIC SOLAR ENERGY FACILITY NEAR LEEUDORINGSTAD IN THE MATLOSANA LOCAL MUNICIPALITY, NORTH WEST PROVINCE

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

In terms of regulation 10(2) of the Environmental Impact Assessment Regulations, 2010 (the Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 12 (twelve) days of the date of the EA, of the Department's decision in respect of your application as well as the provisions regarding the submission of appeals that are contained in the Regulations.

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 3207561;
By post: Private Bag X447,
Pretoria, 0001; or
By hand: 2nd Floor, Fedsure Building, North Tower,
Cnr. Lilian Ngoyi 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: Integrated Environmental Authorisations*) 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:

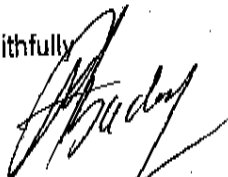
Mr Z Hassam, Director: Appeals and Legal Review, of this Department at the above mentioned addresses or fax number. Mr Hassam can also be contacted at:

Telephone number: 012-310-3271

Email address: AppealsDirectorate@environment.gov.za

The authorised activities 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 faithfully



Ms Ishaam Abader

Deputy Director-General: Legal, Authorisations, Compliance and Enforcement

Department of Environmental Affairs

Date: 9/07/2014

cc:	Ms Cari Steenkamp	Environamics Environmental Consultants	Tel: 018 299 1523	Fax: 086 762 8336
	Ms O Skosana	North West Provincial DEDECT	Tel: 018 389 5156	Fax: 018 389 5006

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: <ul style="list-style-type: none"> • 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, <ul style="list-style-type: none"> • 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 36 of the Environmental Impact Assessment Regulations, 2010

The 75MW Bokamoso Photovoltaic Solar Energy Facility near Leeudoringstad in the
Matlosana Local Municipality, North West Province

Kenneth Kaunda District Municipality

Authorisation register number:	14/12/16/3/3/2/559
NEAS reference number:	DEA/EIA/0001919/2013
Last amended:	First issue
Holder of authorisation:	Bokamoso Energy (Pty) Ltd
Location of activity:	Portion of the Farm Matjesspruit 145, Registration Division HP Kenneth Kaunda District Municipality Matlosana Local Municipality North West Province

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, 2010 the Department hereby authorises –

BOKAMOSO ENERGY (PTY) LTD

with the following contact details –

Mr Dick Berlijn
Bokamoso Energy (Pty) Ltd
2nd Floor West Tower
Maude Street
Nelson Mandela Square
SANDTON
2196

Telephone Number: (074) 248 8488
Fax Number: (086) 273 1614
E-mail address: berlijn@subsolar.co.za



to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notices 1; 2; and, 3 (GN R. 544, 545 & 546):

Listed activities	Activity/Project description
<p><u>GN R. 544 Item 10:</u> <i>"The construction of facilities or infrastructure for the transmission and distribution of electricity - (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts."</i></p>	<p>The proposed photovoltaic solar facility will transmit and distribute electricity via a 132kV overhead transmission line, located outside an urban area.</p>
<p><u>GN R. 545 Item 1:</u> <i>"The construction of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."</i></p>	<p>The proposed photovoltaic solar facility will generate 75 megawatts electricity.</p>
<p><u>GN R. 545 Item 15:</u> <i>"Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more."</i></p>	<p>The proposed photovoltaic solar facility is located outside an urban area and will result in the transformation of approximately 130 hectares of undeveloped, vacant or derelict.</p>
<p><u>GN R. 546 Item 14:</u> <i>"The clearance of an area of 5 hectares or more of vegetation where 75% or more of the vegetative cover constitutes indigenous vegetation..."</i> a) In Northwest: i. All areas outside urban areas.</p>	<p>The proposed activity will result in the clearance of 5 hectares or more of indigenous vegetation outside an urban area.</p>
<p><u>GN R. 546 Item 4:</u> <i>"The construction of a road wider than 4 metres with a reserve less than 13,5 metres."</i> (c) In North West Province: i. Outside urban areas, in: (ee) Critical biodiversity areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans.</p>	<p>An internal site road network to provide access to the solar field and associated infrastructure will be required. All site roads will require a width of approximately 4m wide.</p>



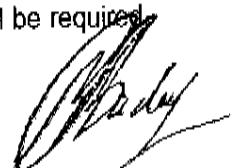
as described in the Environmental Impact Assessment Report (EIAr) dated March 2014 at:

Alternative S1 (preferred site)	Latitude	Longitude
Starting point of activity	27°10'04.51"S	26°24'01.35"E

- for the proposed 75MW Bokamoso Photovoltaic Solar Energy facility and its associated infrastructure on a portion of the Farm Matjesspruit 145, Registration Division HP, situated within the jurisdiction of the Matlosana Local Municipality in the North West Province, hereafter referred to as "the property".

The infrastructure associated with this facility includes:

- **PV Panel Array** - Multiple panels will be required to form the solar PV arrays which will comprise the PV facility. The PV panels will either be fixed to a single-axis horizontal tracking structure or tilted at a fixed angle equivalent to the latitude at which the site is located in order to capture the most sun.
- **Wiring to Central Inverters** - sections of the PV array will be wired to central inverters sized from 500kW to 2MW. The inverter's role is to convert direct current (DC) electricity to alternating current (AC) electricity at grid frequency.
- **Connection to the grid** - connecting the array to the electrical grid requires transformation of the voltage from 480V to 33kV to 132kV. The normal components and dimensions of a distribution rated electrical substation will be required. Output voltage from the inverter is 480V and this is fed into step up transformers to 33kV. A 33/132kV onsite substation will be required on the site to step the voltage up to 132kV, after which the power will be evacuated into the national grid. The extent of the substation will approximately be 50mx50m, while the fencing of the substation will be 100mx100m. It is expected that generation from the facility will tie in with the Harrisburg-Leeubos 132kV power line. The transmission line will be constructed within a 32m wide servitude.
- **Supporting Infrastructure** - a control facility with basic services such as water and electricity will be constructed on the site and will have an approximate footprint of 400m² or less. Other supporting infrastructure includes voltage and current regulators and protection circuitry.
- **Roads** - an access road already exists from the regional road (R502). However an internal site road network to provide access to the solar field and associated infrastructure will be required. All site roads will require a width of approximately 4m.



- **Fencing** - for health, safety and security reasons, the facility will be required to be fenced off from the surrounding farm.

Conditions of this Environmental Authorisation

Scope of authorisation


1. The preferred location site and the power line route alternative that crosses the neighbourhood Farm (132 kV lines) in the Leeudoringstad area, is approved.
2. 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.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this 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.
6. This activity must commence within a period of three (03) years from the date of issue of this authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
7. Commencement with one activity listed in terms of this authorisation constitutes commencement of all authorised activities.
8. The holder of an environmental authorisation must 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 and right to appeal

9. 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.
10. The notification referred to must –
 - 10.1 specify the date on which the authorisation was issued;
 - 10.2 inform the interested and affected party of the appeal procedure provided for in Chapter 7 of the Environmental Impact Assessment Regulations, 2010;
 - 10.3 advise the interested and affected party that a copy of the authorisation will be furnished on request; and,
 - 10.4 give the reasons of the competent authority for the decision.
11. The holder of the authorisation must publish a notice –
 - 11.1 informing interested and affected parties of the decision;
 - 11.2 informing interested and affected parties where the decision can be accessed; and
 - 11.3 drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in the newspaper(s) 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.

Management of the activity

12. A copy of the final development layout map must be made available for comments by registered Interested and Affected Parties and the applicant must consider such comments. Once amended, the final development layout map must be submitted to the Department for written approval prior to commencement of the activity. All available biodiversity information must be used in the finalisation of the layout map. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:
 - 12.1 Position of solar facilities and its associated infrastructure;
 - 12.2 Foundation footprint;
 - 12.3 Internal roads indicating width;
 - 12.4 Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
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- 12.5 All sensitive features e.g. heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
 - 12.6 Substation(s) inverters and/or transformer(s) sites including their entire footprint;
 - 12.7 Connection routes (including pylon positions) to the distribution/transmission network;
 - 12.8 All existing infrastructure on the site, especially roads;
 - 12.9 Buildings, including accommodation; and,
 - 12.10 All "no-go" and buffer areas.
13. Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

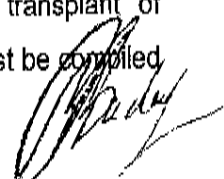
Department of Environmental Affairs
Fedsure Forum Building (corner of Pretorius and Lillian Ngoyi Streets)
4th Floor South Tower
315 Pretorius Street
Pretoria, 0002

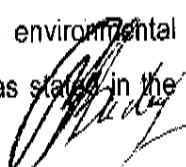
For Attention: Mr Muhammad Essop
Integrated Environmental Authorisations
Strategic Infrastructure Developments



Telephone Number: (012) 395 1734
Fax Number: (012) 395 7539
Email Address: MEssop@environment.gov.za

14. The Environmental Management Programme (EMPr) submitted as part of the EIAr is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting; and the provisions of this environmental authorisation. The EMPr must be made available for comments by registered Interested and Affected Parties and the applicant must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity. Once approved the EMPr must be implemented and adhered to.
15. The EMPr is amendable and must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
16. Changes to the EMPr, which are environmentally defensible, shall be submitted to this Department for acceptance before such changes could be effected.
17. The Department reserves the right to amend the EMPr should any impacts that were not anticipated or covered in the EIAr be discovered.
18. The provisions of the approved EMPr including recommendations and mitigation measures in the EIAr and specialist studies shall be an extension of the conditions of this EA and therefore noncompliance with them would constitute noncompliance with the EA.
19. The EMPr amendment must include the following:
 - 19.1 All recommendations and mitigation measures recorded in the EIAr.
 - 19.2 All mitigation measures as listed in the specialist reports must be included in the EMPr and implemented.
 - 19.3 The requirements and conditions of this authorisation.
 - 19.4 The final site layout map.
 - 19.5 An alien invasive management plan to be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
 - 19.6 A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled



- by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
- 19.7 A re-vegetation and habitat rehabilitation plan to be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- 19.8 A traffic management plan for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan must include measures to minimize impacts on local commuters e.g. limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time and avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
- 19.9 A storm water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
- 19.10 An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Appropriate erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.
- 19.11 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.
- 19.12 Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.
- 19.13 An environmental sensitivity map indicating environmental sensitive areas and features identified during the EIA process.
- 19.14 A map combining the final layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the proposed location of the PV as stated in the EIA and this authorisation.
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Environmental Control Officer (ECO) and duties

20. 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 EMPr.
21. The ECO must be appointed before commencement of any authorised activity.
22. Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of this Department.
23. The ECO must meet with the contractors to discuss the conditions of the EA and the contents of the EMPr prior to any site clearing occurring.
24. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.
25. The ECO must:
 - 25.1 Keep record of all activities on site, problems identified, transgressions noted and a 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, licences and authorisations such as waste disposal certificates, hazardous waste landfill site licences 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 this 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 EMPr 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 the approved EMPr;
 - 29.8 Include all documentation such as waste disposal certificates, hazardous waste landfill site licences etc. pertaining to this authorisation; and
 - 29.9 Include evidence of adherence to the conditions of this authorisation and the EMPr where relevant such as training records and attendance records.



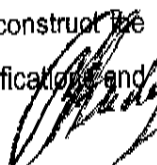
Commencement of the activity

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. Should you be notified by the Minister of a suspension of the authorisation pending appeal procedures, you may not commence with the activity until such time that the Minister allows you to commence with such an activity in writing.
33. 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 holder impact on any wetland or water resource. A copy of the license must be kept by the ECO.

Notification to authorities

34. 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, within which construction may not commence.

Operation of the activity

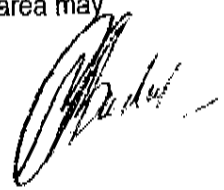
35. Fourteen (14) days written notice must be given to the Department that the activity operational phase will commence.
 36. The holder of this authorisation must compile an operational EMPr for the operational phase of the activity or alternatively, if the holder has an existing operational environmental management system, it must be amended to include the operation of the authorised activity.
 37. The EMPr must form part of the contract with the EPC Contractor appointed to construct the proposed facility, and must be used to ensure compliance with environmental specifications and management measures.
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Site closure and decommissioning

38. 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


39. Any further site/feature (such as an unmarked grave or an ostrich eggshell cache) being found in the course of development of the proposed power station, SAHRA must be contacted immediately so that the find can be investigated and mitigation measures proposed.
40. The holder of this authorisation must ensure that all the "No-go" and buffer areas are clearly demarcated (using fencing and appropriate signage) before construction commences. Furthermore, a buffer zone of 30m must be afforded to protect the wetland patch on site.
41. The footprint of the development must be limited to the areas required for actual construction works and operational activities and the areas outside of the footprint must be clearly demarcated and regarded as "no-go" areas.
42. Vegetation clearing must be limited to the required footprint. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species.
43. Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the relevant provincial department for the destruction of species protected in terms of the specific provincial legislation. Copies of the permits must be kept by the ECO.
44. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
45. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the rehabilitation plan to be included in the final EMPr.
46. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
47. No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.



48. 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.
49. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
50. Contractors and construction workers must be clearly informed of the no-go areas.
51. Disturbed areas must be rehabilitated as soon as possible after construction with locally indigenous plants to enhance the conservation of existing natural vegetation on site.
52. Workers must be made aware of the importance of not polluting rivers or wetlands and of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.
53. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration should be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
54. 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.
55. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
56. Signage must be erected at appropriate points warning of turning traffic and the construction site.
57. Construction vehicles carrying materials to the site should avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
58. Should abnormal loads have to be transported by road to the site, a permit must be obtained from the relevant Provincial Government.
59. All construction vehicles should adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.
60. 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.
61. 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.

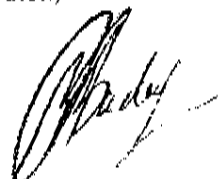
62. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
63. No unsupervised open fires for cooking or heating must be allowed on site.
64. Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.
65. Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.
66. Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved waste landfill site licensed to accept such waste.
67. 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.
68. Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.
69. 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.
70. Temporary bunds must be constructed around chemical storage to contain possible spills.
71. Spill kits must be made available on-site for the clean-up of spills.
72. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling and re-use options where appropriate. Where solid waste is disposed of, such disposal shall only occur at a landfill licensed in terms of section 20(b) of the National Environment Management Waste Act, 2008 (Act 59 of 2008).
73. The holder of this authorisation must provide sanitation facilities within the construction area and along the road so that workers do not pollute the surrounding environment. These facilities must be removed from the site when the construction phase is completed as well as associated waste to be disposed of at a registered waste disposal site.
74. The holder of this authorisation must take note that no temporary site camps will be allowed outside the footprint of the development area as the establishment of such structures might trigger a listed activity as defined in the Environmental Impact Assessment Regulations, 2010.



75. 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.
76. Borrow materials must be obtained only from authorized and permitted sites. Permits must be kept on site by the ECO.
77. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
78. Appropriate dust suppression techniques must be implemented on all exposed surfaces during periods of high wind. Such measures may include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.
79. A pre-construction survey of the final development footprint must be conducted to ascertain the identity and exact number of individuals of protected species affected by the proposed development. Prior to the commencement of construction, a rescue and rehabilitation operation for these species which could survive translocation must be conducted.
80. No construction activities can commence without having obtained the necessary permits for ToPS listed and provincially protected species within the study area.
81. Any vegetation clearing that needs to take place as part of maintenance activities, should be done in an environmentally friendly manner, including avoiding the use of herbicides and using manual clearing methods wherever possible.
82. All construction vehicles must remain on properly demarcated roads. No construction vehicles should be allowed to drive over the vegetation except where no cleared roads are available. In such cases a single track should be used and multiple paths should not be formed. Where temporary access roads are created, they should be rehabilitated as outlined in the rehabilitation plan after completion of construction.
83. Regular monitoring for erosion must take place to ensure that no erosion problems are occurring at the site as a result of the roads and other infrastructure. All erosion problems observed should be rectified as soon as possible as outlined in the erosion management plan within the EMPr.
84. Excavations must be inspected regularly in order to rescue trapped animals.
85. An appropriately designed and effective stormwater management system must be implemented.
86. Kerbs and storm water channels must be designed in such a way that they can allow small animals and reptiles to move freely.
87. All declared aliens must be identified and managed in accordance with the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). There should be an alien species 

monitoring and eradication program to prevent encroachment of these problem plants for the duration of the operation. This should form part of the EMPr and should aim to address alien plant problems within the whole site, not just the development footprint. A rehabilitation strategy, with follow-up for at least two years after construction were completed, must also form part of the EMPr.

88. Top soil and subsoil must be stockpiled separately and replaced according to the correct profile i.e. topsoil replaced last. Stockpiles should not be situated such that they obstruct natural water pathways and drainage channels.
89. Top soil stockpiles must not exceed 2m in height, stockpiles older than 6 months must be enriched before they can be used to ensure the effectiveness of the topsoil.
90. Any fauna directly threatened by the construction activities should be removed to a safe location by a suitably qualified person.
91. The collection, hunting, or harvesting of any plants or animals at the site is strictly forbidden.
92. The washing of panels during maintenance must be done with biodegradable soaps to avoid soil contamination and poisoning of small animals.
93. Lighting for both the construction period and through the operation of the facility must be of low-pressure sodium type, preferably yellow. All perimeter and security lighting must be attached to motion detectors, and should be dark-sky friendly.
94. Electric fencing should not have any strands within 30cm of the ground, which should be sufficient to allow smaller mammals, reptiles and tortoises to pass through (tortoises retreat into their shells when electrocuted and eventually succumb from repeated shocks), but still remain effective as a security barrier.
95. All new power lines must be marked with bird flight diverters along their entire length. To create a net benefit, where possible, the new lines must run parallel to existing marked lines so as to reduce the collision risk posed by the older lines.
96. The poles should be fitted with bird perches on top of the poles to draw birds, particularly vultures away from the potentially risky insulators.
97. All pylons to be constructed should make use of "bird friendly" monopole structures, fitted with a bird perch, as per Eskom standard guidelines.
98. During operation, any electrocution and collision events that occur should be recorded, including the species affected and the date. If repeated collisions occur within the same area, then, further mitigation and avoidance measures may need to be implemented.



General

99. A copy of this authorisation and the approved EMPr must be kept at the property where the activity will be undertaken. The authorisation and approved EMPr 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.
100. The holder of the authorisation must notify both the *Director: Integrated Environmental Authorisations* 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.

Date of environmental authorisation: 9 July 2014


Mr Ishaam Abader

Deputy Director-General: Legal, Authorisations, Compliance and Enforcement
Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Information considered in making the decision

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

- a) The listed activities as applied for in the amended application form.
- b) The information contained in the EIAr.
- c) The comments received from the Department of Agriculture Forestry and Fisheries; the Department of Energy, the South African Heritage Resources Agency (SAHRA); Eskom; Kaunda District Municipality, organs of state, and interested and affected parties as included in the EIAr;
- d) Mitigation measures as proposed in the EIAr;
- e) The information contained in the specialist studies contained within Appendix D of the EIAr and as appears below:

Title	Prepared by	Date
Ecological Fauna and Flora Habitat Survey Impact Assessment	Reinier F Terblanche: Anthene Ecological cc	October 2013
Soil, Land Capability and Agricultural Impact Assessment	A.R. Gotze: Environmental Research Consulting	August 2013
Visual Impact Assessment	Dr L.A Sandham : EAP	September 2013
Heritage Impact Assessment:	Mr J van Schalkwyk: Heritage Consultant	September 2013
Socio-Economic Impact Assessment	Tony Barbour and Schalk van der Merwe: Environmental Research Consulting	October 2013
Geotechnical report	Mr B.J. Scheepers: Ages (Pty) Ltd	September 2013

- 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).



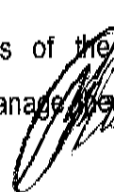
2. Key factors considered in making the decision

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) Details provided of the qualifications of the Environmental Assessment Practitioner (EAP).
- b) The findings of all the specialist studies conducted and their recommended mitigation measures.
- c) The need for the proposed project stems from the provision of electricity to the national grid in terms of the Renewable Energy Independent Power Producers Procurement Programme (RRIPPPP) as required by the Department of Energy.
- d) The EIAr identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- e) 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 were provided.
- f) The methodology used in assessing the potential impacts identified in the EIAr and the specialist studies have been adequately indicated.
- g) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2010 for public involvement.

3. Findings

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

- a) The identification and assessment of impacts are detailed in the EIAr and sufficient assessment of the key identified issues and impacts have been completed.
 - b) The procedure followed for impact assessment is adequate for the decision-making process.
 - c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
 - d) The information contained in the EIAr is accurate and credible.
 - e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAr and will be implemented to manage the identified environmental impacts during the construction process.
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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 environmental authorisation is accordingly granted.

