



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

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

DEA Reference: 14/12/16/3/3/2/938

Enquiries: Mr Vincent Chauke

Telephone: (012) 399 9399 **E-mail:** VChauke@environment.gov.za

Mr Dick Berlijn
Lutzburg Solar Power Plant (RF) (Pty) Ltd
PO Box 785553
SANDTON
2146

Telephone Number: (+2701) 500 3680
Cell phone Number: (+2774) 248 8488
Email Address: berlijn@subsolar.co.za

PER E-MAIL / MAIL

Dear Mr Berlijn

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 982/983/984/985: FOR THE 115 MEGAWATTS (MW) LUTZBURG PHOTOVOLTAIC SOLAR ENERGY FACILITY ON THE REMAINING EXTENT OF PORTION 2 OF THE FARM RUBY VALE 266 SOUTH WEST OF THE TOWN OF OLIFANTSHOEK WITHIN THE TSANTSABANE LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE

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

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014 (the Regulations), you are instructed to notify all registered interested and affected parties, in writing and within 14 (fourteen) days of the date of the EA, of the Department's decision in respect of your application as well as the fact that an appeal may be lodged against the decision in terms of the National Appeals Regulations, and the provisions regarding the submission of appeals as contained in the Regulations.

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

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

Mr Z Hassam, Director: Appeals and Legal Review of this Department at the below mentioned addresses.

By Email: appealsdirector@environment.gov.za;

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

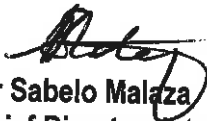
M.S.

By post: Private Bag X447,
Pretoria,
0001

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

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

Yours faithfully



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

Date: 10/02/2017

cc:	Ms M Griesel	Environamics	Email: marel@environamics.co.za
	Mrs D Werth	Northern Cape DE&NC	Email: dwerth@ncpg.gov.za
	Mr GH Mathobela	Tsantsabane Local Municipality	Email: mm@tsantsabane.gov.za



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014

The 115 Megawatts (MW) Lutzburg Photovoltaic Solar Energy Facility on the Remaining Extent of Portion 2 of the Farm Ruby Vale No. 266 south of the town of Olifantshoek within the Tsantsabane Local Municipality in the Northern Cape Province

ZF Mgcawu District Municipality

Authorisation register number:	14/12/16/3/3/2/938
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>Lutzburg Solar Power Plant (RF) (Pty) Ltd</i>
Location of activity:	<i>The Remaining Extent of Portion 2 of the Farm Ruby Vale No. 266, Tsantsabane Local Municipality, ZF Mgcawu District Municipality, Northern Cape Province</i>

This authorisation does not negate the holder of the authorisation's responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.

Decision

The Department is satisfied, on the basis of information available to it and subject to compliance with the conditions of this environmental authorisation, that the applicant should be authorised to undertake the activities specified below.

Non-compliance with a condition of this environmental authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management Act, 1998 and the EIA regulations.

Details regarding the basis on which the Department reached this decision are set out in Annexure 1.

Activities authorised

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No.107 of 1998) and the Environmental Impact Assessment Regulations, 2014 the Department hereby authorises –

Lutzburg Solar Power Plant (RF) (Pty) Ltd

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

with the following contact details –

Mr Dick Berlijn
Lutzburg Solar Power Plant (RF) (Pty) Ltd
PO Box 785553
SANDTON
2146

Telephone Number: (+2701) 500 3680
Cell phone Number: (+2774) 248 8488
Fax Number: (+2786) 273 1614
Email Address: berlijn@subsolar.co.za

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 and Listing Notice 2 (GN R. 983 and 984):

Activity number	Activity description
<p><u>GN R. 983: Activity 11:</u> <i>"The development of facilities or infrastructure for the transmission and distribution of electricity – (i) Outside urban area or industrial complexes with a capacity of more than 33 but less than 275 kilovolts..."</i></p>	<p>The proposed Lutzburg Solar Power Plant (RF) (Pty) Ltd photovoltaic solar facility will transmit and distribute electricity of 132 kilovolts outside an urban area.</p>
<p><u>GN R. 983: Activity 28:</u> <i>"Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 1998 and where such development: (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare."</i></p>	<p>The proposed Lutzburg Solar Power Plant (RF) (Pty) photovoltaic solar facility will result in the property being rezoned to "special" land use.</p>
<p><u>GN R. 984: Activity 1:</u> <i>"The development of facilities or infrastructure for the generation of electricity where the electricity output is 20 megawatts or more."</i></p>	<p>The proposed Lutzburg Solar Power Plant (RF) (Pty) photovoltaic solar facility will have an electricity output of 115 megawatts.</p>
<p><u>GN R. 984: Activity 15:</u> <i>"The clearance of an area of 20 hectares or more of indigenous vegetation."</i></p>	<p>The proposed Lutzburg Solar Power Plant (RF) (Pty) photovoltaic solar facility will have a maximum footprint of 300ha and as such exceeds the threshold defined in this activity.</p>

as described in the Environmental Impact Assessment Report (EIAr) dated October 2016 at:

21 SG Code:

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PV Facility (Preferred site)	Latitude	Longitude
	28° 12' 37.43" S	22° 34' 16.75" E
	28° 12' 47.01" S	22° 34' 36.25" E
	28° 14' 05.96" S	22° 34' 19.98" E
	28° 13' 38.29" S	22° 33' 17.06" E
Access road		
	28° 12' 47.53" S	22° 34' 35.65" E
	28° 12' 47.71" S	22° 34' 36.47" E
	28° 12' 47.04" S	22° 34' 36.57" E
	28° 12' 47.89" S	22° 34' 51.78" E
	28° 12' 38.83" S	22° 34' 57.92" E
	28° 12' 34.21" S	22° 35' 00.29" E
Power line		
	28° 12' 47.11" S	22° 34' 35.76" E
	28° 12' 46.72" S	22° 34' 35.92" E
	28° 12' 47.60" S	22° 34' 51.63" E
	28° 12' 38.74" S	22° 34' 57.62" E
	28° 12' 33.87" S	22° 35' 00.20" E
	28° 12' 44.64" S	22° 35' 30.19" E
	28° 12' 38.76" S	22° 35' 35.28" E
	28° 12' 39.88" S	22° 35' 37.64" E

- for the 115 MW Lutzburg Photovoltaic Solar Energy Facility on the Remaining Extent of Portion 2 of the Farm Ruby Vale No. 266 south of the town of Olifantshoek within the Tsantsabane Local Municipality in the Northern Cape Province, hereafter referred to as "the property".

The Lutzburg Solar PV Energy Facility will comprise the following:

- PV Panel Array - to produce a maximum capacity of 115MW;
- Wiring to central inverters - Sections of the PV array will be wired to central inverters. The inverter is a pulse width mode inverter that converts 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;

- Electrical reticulation network – An internal electrical reticulation network will be required and will be laid ~2 - 4m underground as far as practically possible;
- Supporting infrastructure – The following auxiliary buildings with basic services including water and electricity will be required on site:
 - Office (~16m x 9.85m);
 - Switch gear and relay room (~25m x 14m);
 - Staff lockers and changing room (~21.7m x 9.85m); and
 - Security control (~11.8m x 5.56m).
- Roads – Access will be obtained via the D3300 gravel road off the R385 Provincial Road. An internal site road network will also be required to provide access to the solar field and associated infrastructure. The access road will have a width of ~6m and the internal road/track between 8m and 10m, and
- Fencing - Cochrane Clearvu fencing with a height of 2.5 meters will be used.

Technical details of the proposed facility:

Component	Description/ Dimensions
Height of PV panels	3.5 meters.
PV Panel area	300 ha.
Number of inverters required	34 minimum.
Area to be occupied by inverter / transformer stations / substations	Inverter transformer station: 2.5 x 7.6 meters (19m ²). Substation: 3 000m ² .
Capacity of on-site substation	132 KV.
Area to be occupied by both permanent and construction laydown areas	Permanent laydown area: 300 hectares. Construction laydown area: 713.11 m ² .
Area to be occupied by buildings	Security Room: 66.74 m ² . Office: 157.6 m ² . Staff locker and changing room: 213.745 m ² .
Preferred site access	Access will be easily obtained from the D3300 gravel road.
Generation capacity	115 MW.
Proposed technology	Photovoltaic Solar facility (PV).
Width and length of internal roads	Main internal road - width: Between 8 and 10 meters, length: Approximately 13 km.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The 115 MW Lutzburg Photovoltaic Solar Energy Facility on the Remaining Extent of Portion 2 of the Farm Ruby Vale No. 266 south of the town of Olifantshoek within the Tsantsabane Local Municipality in the Northern Cape Province as described above is hereby approved.
2. Authorisation of the activity is subject to the conditions contained in this environmental authorisation, which form part of the environmental authorisation and are binding on the holder of the authorisation.
3. The holder of the authorisation is responsible for ensuring compliance with the conditions contained in this environmental authorisation. This includes any person acting on the holder's behalf, including but not limited to, an agent, servant, contractor, sub-contractor, employee, consultant or person rendering a service to the holder of the authorisation.
4. The activities authorised may only be carried out at the property as described above.
5. Any changes to, or deviations from, the project description set out in this environmental authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for the holder of the authorisation to apply for further environmental authorisation in terms of the regulations.
6. The holder of an environmental authorisation must apply for an amendment of the environmental authorisation with the competent authority for any alienation, transfer or change of ownership rights in the property on which the activity is to take place.
7. This activity must commence within a period of five (05) years from the date of issue of this environmental authorisation. If commencement of the activity does not occur within that period, the authorisation lapses and a new application for environmental authorisation must be made in order for the activity to be undertaken.
8. Construction must be completed within five (05) years of the commencement of the activity on site.
9. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

Notification of authorisation and right to appeal

10. The holder of the authorisation must notify every registered interested and affected party, in writing and within 14 (fourteen) calendar days of the date of this environmental authorisation, of the decision to authorise the activity.
11. The notification referred to must –
 - 11.1. specify the date on which the authorisation was issued;
 - 11.2. inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;
 - 11.3. advise the interested and affected party that a copy of the authorisation will be furnished on request; and
 - 11.4. give the reasons of the competent authority for the decision.
12. The holder of the authorisation must publish a notice –
 - 12.1. informing interested and affected parties of the decision;
 - 12.2. informing interested and affected parties where the decision can be accessed; and
 - 12.3. drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014.

Commencement of the activity

13. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.

Management of the activity

14. The development Layout Plan titled "Lutzburg Solar Power Plant and dated 5 July 2016" is approved.
15. The Environmental Management Programme (EMPr) submitted as part of the application for EA is hereby approved. This EMPr must be implemented and adhered to.

16. The EMPr must be implemented and strictly enforced during all phases of the project. It must be seen as a dynamic document and must be included in all contract documentation for all phases of the development when approved.
17. Should the holder of this environmental authorisation propose any changes to the EMPr, the holder of this environmental authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time.
18. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAr be discovered.
19. A shapefile of the development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 or specify if an alternative scale was used. The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title.

The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Environment House
473 Steve Biko
Arcadia
Pretoria

For Attention:

Mr Muhammad Essop

Integrated Environmental Authorisations

Strategic Infrastructure Developments

Telephone Number: (012) 399 9406

Email Address: MEssop@environment.gov.za

Frequency and process of updating the EMPr

20. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 27 below, indicate insufficient mitigation of environmental impacts associated with the undertaking of the activity, or insufficient levels of compliance with the environmental authorisation or EMPr.
21. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
22. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of GN R. 982. The updated EMPr must have been subjected to a public participation process, which process has been agreed to by the Department, prior to submission of the updated EMPr to the Department for approval.
23. In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.
24. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The holder must notify the Department of its intention to amend the EMPr at least 60 days prior to submitting such amendments to the EMPr to the Department for approval. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.

Monitoring

25. The holder of the authorisation must appoint an experienced independent Environmental Control Officer (ECO) for the construction phase of the development that will have the responsibility to ensure that the mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
 - 25.1. The ECO must be appointed before commencement of any authorised activities.
 - 25.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
 - 25.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 - 25.4. The ECO must remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is ready for operation.

Recording and reporting to the Department

26. All documentation e.g. audit/monitoring/compliance reports and notifications, required to be submitted to the Department in terms of this environmental authorisation, must be submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
27. The holder of the environmental authorisation must, for the period during which the environmental authorisation and EMPr remain valid, ensure that project compliance with the conditions of the environmental authorisation and the EMPr are audited, and that the audit reports are submitted to the *Director: Compliance Monitoring* of the Department at Directorcompliance@environment.gov.za.
28. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, taking into account the processes for such auditing as prescribed in Regulation 34 of GN R. 982.
29. The holder of the authorisation must, in addition, submit environmental audit reports to the Department within 30 days of completion of the construction phase (i.e. within 30 days of site handover) and a final environmental audit report within 30 days of completion of rehabilitation activities.
30. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.

31. Records relating to monitoring and auditing must be kept on site and made available for inspection to any relevant and competent authority in respect of this development.

Notification to authorities

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

Operation of the activity

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

Site closure and decommissioning

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

Specific conditions

35. The footprint of the development must be limited to the areas required for actual construction works and operational activities.
36. Areas outside of the footprint, including sensitive areas and buffer areas, must be clearly demarcated (using fencing and appropriate signage) before construction commences and must be regarded as "no-go" areas.
37. Contractors and construction workers must be clearly informed of the "no-go" areas.
38. 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.
39. Before the clearing of the site, 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 made available to this Department on request.
40. No construction activities can commence without having obtained the necessary permits for threatened or protected species (ToPS) listed and provincially protected species within the study area.
 41. Construction activities must be restricted to demarcated areas to restrict the impact on sensitive environmental features.
 42. All areas of disturbed soil must be reclaimed using only indigenous vegetation. Reclamation activities shall be undertaken according to the approved EMPr.
 43. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
 44. Wetlands, ridges, water courses and drainage lines must be treated as "no-go" areas and appropriately demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.
 45. No discharge of effluents or polluted water must be allowed into any drainage lines, water courses and wetland areas.
 46. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
 47. Anti-erosion measures such as silt fences must be installed in disturbed areas.
 48. No activities will be allowed to encroach into a water resource without a Water Use License being in place from the Department Water and Sanitation.
 49. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
 50. 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 legislation.
 51. Workers must be made aware of the importance of not water courses or wetlands and the significance of not undertaking activities that could result in such pollution, and this awareness must be promoted throughout the construction phase.
 52. 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.
 53. Signage must be erected at appropriate points warning of turning traffic and the construction site.
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54. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
 55. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
 56. Should abnormal loads have to be transported by road to the site, a permit must be obtained from the relevant authorities.
 57. 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.
 58. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
 59. 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.
 60. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
 61. No unsupervised open fires for cooking or heating must be allowed on site.
 62. 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.
 63. The holder of this authorisation must 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.
 64. 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.
 65. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
 66. 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.
 67. All construction vehicles must adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.
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68. 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 must be used and multiple paths must not be formed. Where temporary access roads are created, they must be rehabilitated as outlined in the rehabilitation plan after completion of construction.
 69. 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 EMP.
 70. Excavations must be inspected daily in order to rescue trapped animals.
 71. An appropriately designed and effective storm water management system must be implemented.
 72. Kerbs and storm water channels must be designed in such a way that they can allow small animals and reptiles to move freely.
 73. Stockpiles must not be situated such that they obstruct natural water pathways and drainage channels.
 74. 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.
 75. Any fauna directly threatened by the construction activities must be removed to a safe location by a suitably qualified person.
 76. Should any archaeological sites, artefacts, paleontological fossils or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, the South African Heritage Resources Agency (SAHRA) must be informed and the services of an accredited heritage professional obtained for an assessment of the heritage resources must be made.
 77. The collection, hunting, or harvesting of any plants or animals at the site is strictly forbidden.
 78. 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.
 79. 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.
 80. The poles must be fitted with bird perches on top of the poles to draw birds, particularly vultures away from the potentially risky insulators.
 81. All pylons to be constructed must make use of "bird friendly" monopole structures, fitted with a bird perch, as per Eskom standard guidelines.
 82. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
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83. 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.
84. The washing of panels during maintenance must be done with biodegradable soaps to avoid soil contamination and poisoning of small animals.
85. Any vegetation clearing that needs to take place as part of maintenance activities, must be done in an environmentally friendly manner, including avoiding the use of herbicides and using manual clearing methods wherever possible.
86. 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.
87. During operation, any electrocution and collision events that occur must 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.
88. 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).

General

89. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
 - 89.1. at the site of the authorised activity;
 - 89.2. to anyone on request; and
 - 89.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
90. National government, provincial government, local authorities or committees appointed in terms of the conditions of this authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the authorisation or his/her successor in title in any instance where construction or operation subsequent to construction be temporarily or permanently stopped for reasons of non-compliance by the holder of the authorisation with the conditions of authorisation as set out in this document or any other subsequent document emanating from these conditions of authorisation.

Date of environmental authorisation: 10/02/2017


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

Annexure 1: Reasons for Decision

1. Information considered in making the decision

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

- a) The listed activities as applied for in the application form received on 26 May 2016.
- b) The information contained in the EIAr dated October 2016.
- c) The comments received from the Northern Cape Department of Roads and Public Works, the Square Kilometre Array - South Africa, the South African National Roads Agency, the South African Heritage Resources Agency and interested and affected parties as included in the EIAr.
- d) Mitigation measures as proposed in the EIAr and the EMPr.
- e) The information contained in the specialist studies contained within the appendices of the EIAr dated October 2016 and as appears below:

Title	Prepared by	Date
Geotechnical study	Johann Lanz	June 2016
Faunal and Floral Diversity and Habitat Assessments combined with the addendum to the report	Environment Research Consulting	March 2016 and August 2016
Avian Impact Assessment Report	Birds & Bats Unlimited Environmental Consultants	2016
Visual Impact Assessment combined with the addendum to the Report	Phala Environmental Consultants	April 2016 and August 2016
Agricultural and Soils Impact Assessment combined with the addendum to the Report	Johann Lanz	June 2016 and August 2016
Cultural Heritage Impact Assessment combined with the addendum to the Report	J van Schalkwyk (D Litt et Phil), Heritage Consultant	March 2016
Palaeontological desktop study combined with the addendum cumulative Palaeontological Heritage Impact statement	Dr. L Rossouw	August 2016

Social Impact Assessment combined with the addendum Cumulative Impact Assessment Report	Leandri Kruger	April 2016
Traffic Impact Study	BVi Consulting Engineers	August 2016
EMPr	Mrs. Carli Otte, Ms. Marelie Griesel and Ms. Liesl de Swardt of Environamics	7 October 2016

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 and their recommended mitigation measures.
- b) The need for the proposed project stems from the provision of electricity to the national grid.
- c) Relevant legislations and guidelines have been identified and considered in the preparation of EIAR dated October 2016.
- d) The methodology used in assessing the potential impacts identified in the EIAR dated October 2016 and the specialist studies have been adequately indicated.
- e) A sufficient public participation process was undertaken and the applicant has satisfied the minimum requirements as prescribed in the EIA Regulations, 2014 for public involvement.

3. Findings

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

- a) The identification and assessment of impacts are detailed in the EIAR dated October 2016 and sufficient assessment of the key identified issues and impacts have been completed.
- b) The procedure followed for impact assessment is adequate for the decision-making process.
- c) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- d) The information contained in the EIAR dated October 2016 is deemed to be accurate and credible.

- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAr dated October 2016 and will be implemented to manage the identified environmental impacts during the construction phase.

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