



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

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

For the 19.9 MW expansion of the Waterloo photovoltaic solar energy facility on the farm Waterloo 992 south east of the town of Vryburg within the Naledi Local Municipality in the North West Province

Dr Ruth Segomotsi Mompati District Municipality

Authorisation register number:	<i>14/12/16/3/3/1/1551</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>DPS79 Solar Energy (Pty) Ltd</i>
Location of activity:	<i>Farm Waterloo 992 Naledi Local Municipality Dr Ruth Segomotsi Mompati District Municipality North West 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 –

DPS79 SOLAR ENERGY (PTY) LTD

with the following contact details –

Mr Andrew Melville Johnson

DPS79 Energy (Pty) Ltd

2nd Floor Global House

28 Sturdee Avenue

ROSEBANK

2196

Telephone Number: (010) 595 3333

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Email Address: ajohnson@sunedison.com

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1 (GN R. 983) and Listing Notice 3 (GN R. 985):

Activity number	Activity description
<p><u>GN R. 983 Activity 1:</u> <i>"The development of facilities or infrastructure for the generation of electricity from a renewable resource where –</i> (i) <i>The electricity output is more than 10 megawatts but less than 20 megawatts."</i></p>	<p>This activity is triggered since the solar facility will produce 19.9 MW of electricity.</p>
<p><u>GN R. 983 Activity 27:</u> <i>"The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation."</i></p>	<p>19.9 hectares of indigenous vegetation will be removed.</p>
<p><u>GN R. 985 Activity 4:</u> <i>"The development of a road wider than 4 metres with a reserve less than 13.5 metres</i> (e) <i>In North West</i> (ii) <i>Outside urban areas in</i> (ee) <i>critical biodiversity areas as identified in bioregional plans."</i></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 ~ 4m. Therefore this activity is triggered since the site is located outside an urban area and within a critical biodiversity area.</p>
<p><u>GN R. 985 Activity 12:</u> <i>"The clearance of an area of 300 square metres or more of indigenous vegetation –</i> (a) <i>In North West</i> (ii) <i>Within critical biodiversity areas identified in bioregional plans in the North West Province."</i></p>	<p>This activity is triggered since 19.9 hectares of indigenous vegetation will be removed within a critical biodiversity area.</p>

as described in the Basic Assessment Report (BAR) dated June 2016 at:

21 SG Code:

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Site (preferred)

Alternative (preferred site)	Latitude	Longitude
Corner 1	27° 02'29.11"S	24° 46'36.52"E
Corner 2	27° 02'48.41"S	24° 46'46.35"E
Corner 3	27° 02'24.82"S	24° 46'47.05"E
Corner 4	27° 02'43.28"S	24° 46'56.29"E

- for the proposed 19.9 MW expansion of the Waterloo photovoltaic solar energy facility and associated infrastructure located on a portion of the farm Waterloo 992, Registration Division IN, North West situated within the Naledi Local Municipality area of jurisdiction hereafter referred to as "the property".

The 19.9 MW DPS79 Expansion Solar Energy Facility will comprise the following:

- Photovoltaic modules (monocrystalline, polycrystalline or thin-film solar modules);
- Mounting systems (fixed or single-axis horizontal trackers) for the PV arrays and related foundations;
- Internal cabling and string boxes;
- Medium voltage stations, hosting DC/AC inverters and LV/MV power transformers;
- Medium voltage receiving station(s);
- Electrical system and UPS (Uninterruptible Power Supply) devices;
- Lighting system;
- Grounding system;
- Access road and internal roads;
- Fencing of the site, alarm and video surveillance system.

Technical details of the proposed facility:

Component	Description/ Dimensions
Location of the site	Approximately 10 kilometres south-east of Vryburg, North West Province
PV Panel area	19.9Ha
SG Codes	TOIN00000000099200000
Preferred Site access	Access to the site will be from Amalia Road (D1196) roughly 6m in width

Export capacity	75 MW
Proposed technology	Photovoltaic panels
Height of installed panels from ground level	3.1 meters
Width and length of internal roads	Main internal road - width: approx. 8m, Secondary internal roads – width: approx. 5-6 m

Conditions of this Environmental Authorisation

Scope of authorisation

1. The 19.9 MW DPS79 Expansion Solar Energy Facility and associated infrastructure located on a portion of the farm Waterloo 992, Registration Division IN, North West situated within the Naledi Local Municipality 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. A copy of the final development layout map must be made available for comments by registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final development layout map must be submitted to the Department for written

approval prior to commencement of the activity. All available 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:

- 14.1. Position of solar facilities and its associated infrastructure;
 - 14.2. All sensitive features e.g. heritage sites, wetlands, pans and drainage channels that will be affected by the facility and its associated infrastructure;
 - 14.3. All existing infrastructure on the site, e.g. roads, buildings, substations, powerlines etc; and
 - 14.4. All "no-go" and buffer areas.
15. Furthermore, a shapefile of the development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 or specify if an alternative scale was used. The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title. The shape file must be submitted to:

Postal Address:

Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address:

Department of Environmental Affairs
Environment House
473 Steve Biko
Arcadia
Pretoria
For Attention: Mr Muhammad Essop
Integrated Environmental Authorisations
Strategic Infrastructure Developments
Telephone Number: (012) 399 9406
Email Address: MEssop@environment.gov.za

16. The Environmental Management Programme (EMPr) submitted as part of the EIA is not approved and must be amended to include measures as dictated by the final site lay-out map and micro-siting, and the provisions of this environmental authorisation. The EMPr must be made available for comments by registered Interested and Affected Parties and the holder of this environmental authorisation must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of the activity. Once approved the EMPr must be implemented and adhered to.
17. The EMPr amendment must include the following:
 - 17.1. All recommendations and mitigation measures recorded in the BAR and specialist studies attached as part of the BAR.
 - 17.2. The requirements and conditions of this environmental authorisation.
 - 17.3. An alien invasive management plan that will be implemented during construction and operation of the facility. The plan must include mitigation measures to reduce the invasion of alien species and ensure that the continuous monitoring and removal of alien species is undertaken.
 - 17.4. A plant rescue and protection plan which allows for the maximum transplant of conservation important species from areas to be transformed. This plan must be compiled by a vegetation specialist familiar with the site in consultation with the ECO and be implemented prior to commencement of the construction phase.
 - 17.5. A re-vegetation and habitat rehabilitation plan that will be implemented during the construction and operation of the facility. Restoration must be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
 - 17.6. A storm water and wash water management plan to be implemented during the construction and operation of the facility. The plan must ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion. The plan must include the construction of design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows. Drainage measures must promote the dissipation of storm water run-off.
 - 17.7. An erosion management plan for monitoring and rehabilitating erosion events associated with the facility. Erosion mitigation must form part of this plan to prevent and reduce the risk of any potential erosion.

- 17.8. An effective monitoring system to detect any leakage or spillage of any hazardous substances during their transportation, handling, use or storage. This must include precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or storm water systems.
- 17.9. Measures to protect hydrological features such as streams, rivers, pans, wetlands, dams and their catchments, and other environmental sensitive areas from construction impacts including the direct or indirect spillage of pollutants.
- 17.10. A fire management plan to be implemented during the construction and operation of the facility.
- 17.11. An environmental sensitivity map indicating environmentally sensitive areas and features identified during the EIA process.
- 17.12. The final site layout map.
- 17.13. The final site layout map superimposed (overlain) on the environmental sensitivity map. This map must reflect the approved location of the PV as stated in the BAR and this environmental authorisation.
18. The final amended EMPr (once approved) 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.
19. 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.
20. The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIAr be discovered.

Frequency and process of updating the EMPr

21. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 28 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.
22. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
23. 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.

24. 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.
25. 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

26. 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.
 - 26.1. The ECO must be appointed before commencement of any authorised activities.
 - 26.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
 - 26.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
 - 26.4. 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

27. 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.
28. 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.

29. 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.
30. 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.
31. 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.
32. 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

33. 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

34. 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

35. 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

Conditions for non-operational aspects

36. A pre-construction survey of the final development footprint must be conducted by a qualified floral specialist to ascertain the identity and the 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.
37. 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 made available on request.
38. After initial vegetation clearance has taken place, before the ground is levelled for construction, a professional palaeontologist must undertake a walkthrough and document any identified paleontological findings. The survey/walkthrough must be conducted as per the South African Heritage Resources Agency (SAHRA) requirements.
39. Should any archaeological sites, artefacts, paleontological fossils or graves be exposed during construction, work in the immediate vicinity of the find must be stopped, SAHRA must be informed and the services of an accredited heritage professional obtained for an assessment of the heritage resources to be made.
40. The storm water systems must be built to be able to handle a 2-year flood frequency.
41. Landscaping storm water must be channelled away from all structures.
42. Vegetation clearing must be limited to the required footprint for actual construction works and operational activities. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species.
43. 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.
44. Contractors and construction workers must be clearly informed of the no-go areas.
45. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities must 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. Wetlands, rivers and river riparian areas must be treated as "no-go" areas and appropriately demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste (including waste water) must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.
48. No spoil material, including stripped topsoil must be temporarily stockpiled within 50m of freshwater ecosystems.
49. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
50. Anti-erosion measures such as silt fences must be installed in disturbed areas.
51. No exotic plants must be used for rehabilitation purposes; only indigenous plants of the area must be utilised.
52. No activities must be allowed to encroach into a water resource without a water use license being in place from the Department and Sanitation.
53. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
54. Disturbed areas must be rehabilitated as soon as possible after construction and local indigenous plants must be used to enhance the conservation of existing natural vegetation on site.
55. Workers must be made aware of the importance of not polluting rivers 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.
56. 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 must be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.
57. Signage must be erected at appropriate points warning of turning traffic and the construction site.
58. 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.
59. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
60. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
61. Construction vehicles carrying materials to the site must avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
62. Should abnormal loads have to be transported by road to the site, a permit must be obtained from the relevant Provincial Government.

63. All construction vehicles must adhere to a low speed limit to avoid collisions with susceptible species such as snakes and tortoises.
 64. 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.
 65. 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.
 66. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
 67. No unsupervised open fires for cooking or heating must be allowed on site.
 68. 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).
 69. 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.
 70. 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.
 71. Foundations and trenches must be backfilled with originally excavated materials as much as possible. Excess excavation materials must be disposed of only in an approved areas or, if suitable, stockpiled for use in reclamation activities.
 72. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
 73. Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.
 74. 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.
 75. No construction activities must commence without having obtained the necessary permits for threatened or protected species (ToPS) listed and provincially protected species within the study area.
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76. 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.
77. All construction vehicles must remain on properly demarcated roads. No construction vehicles must 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.
78. 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.
79. Excavations must be inspected daily in order to rescue trapped animals.
80. An appropriately designed and effective storm water management system must be implemented.
81. Kerbs and storm water channels must be designed in such a way that they can allow small animals and reptiles to move freely.
82. Top soil and subsoil must be stockpiled separately and replaced according to the correct profile i.e. topsoil replaced last. Stockpiles must not be situated such that they obstruct natural water pathways and drainage channels.
83. 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.
84. Any fauna directly threatened by the construction activities should be removed to a safe location by a suitably qualified person.
85. The collection, hunting, or harvesting of any plants or animals at the site is strictly forbidden.
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. Electric fencing must 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.
88. The recommendations of the EAP in the BAR dated June 2016 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.

Conditions for operational aspects

89. Periodical inspection of panels to remove and discourage avifaunal nesting is encouraged. Any nest sites must be removed by a qualified avifaunal specialist.
90. The footprint of the development must be limited to the areas required for actual operational activities.
91. Wetlands, rivers and river riparian areas must be treated as “no-go” areas and appropriately demarcated as such. No vehicles, machinery, personnel, construction material, fuel, oil, bitumen or waste must be allowed into these areas without the express permission of and supervision by the ECO, except for rehabilitation work in these areas.
92. No activities must be allowed to encroach into a water resource without a water use license being in place from the Department and Sanitation.
93. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
94. All declared aliens species must be identified and managed in accordance with the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). There must be an alien species monitoring and eradication program to prevent encroachment of these problem plants for the duration of the operation. This must form part of the EMPr and must 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.
95. The collection, hunting, or harvesting of any plants or animals at the site is strictly forbidden.
96. The washing of panels during maintenance must be done with biodegradable soaps to avoid soil contamination and poisoning of small animals.
97. 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.
98. 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 must be implemented.
99. The recommendations of the EAP in the BAR dated June 2016 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.

General

100. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
- 100.1. at the site of the authorised activity;
 - 100.2. to anyone on request; and
 - 100.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
101. 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: 10/10/2012



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations
Department of Environmental Affairs

Annexure 1: Reasons for Decision

1. Information considered in making the decision

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

- a) The listed activities as applied for in the application form received on 29/03/2016.
- b) The information contained in the BAR dated June 2016.
- c) The comments received from the Department of Water and Sanitation, Eskom and PRASA and interested and affected parties as included in the BAR dated June 2016.
- d) Mitigation measures as proposed in the BAR and the EMPr.
- e) The information contained in the specialist studies contained within the appendices of the BAR dated June 2016 and as appears below:

Title	Prepared by	Date
Cultural heritage impact assessment	J Van Schalkwyk	March 2016
Avifaunal Impact Assessment	A. Hudson of HUDSON ECOLOGY PTY LTD	March 2016
Ecological fauna and flora habitat survey	A. Hudson of HUDSON ECOLOGY PTY LTD	March 2016
Soil, land capability and agricultural potential study	A.R. Götze of ENVIRONMENT RESEARCH CONSULTING	November 2012 (Assessment Report) May 2016 (Expansion Impact Statement)
Palaeontological heritage assessment	J.E. Almond of Natura Viva cc	January 2013 (Assessment Report) June 2016 (Expansion Impact Statement)
Dolomite Stability Investigation	R. Freese and F. Pequenino of SMEC South Africa (Pty) Ltd.	January 2015
Hydrogeological Report	R. Freese and F. Pequenino of SMEC South Africa (Pty) Ltd.	October 2015

Visual Impact Statement	J. Botha of Phala Environmental Consultants	June 2016 (Expansion Impact Statement)
Visual Impact Assessment	Dr L A Sandham	September 2012
Social Impact Assessment	T. Barbour and S. van der Merwe of Tony Barbour Environmental Consulting And Research	July 2012 (Assessment) June 2016 (Expansion Impact Statement)

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 aim of the project is to expand the existing Waterloo PV Facility.
- c) The BAR dated June 2016 identified all legislations and guidelines that have been considered in the preparation of the BAR dated June 2016.
- d) The methodology used in assessing the potential impacts identified in the BAR dated June 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 BAR dated June 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 BAR dated June 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 BAR 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.