



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: 14/12/16/3/3/2/754

Enquiries: Ms Nonhlahla Mkhwanazi

Telephone: (012) 399 9386 **E-mail:** NMkhwanazi@environment.gov.za

Ms Deidre Herbst
Eskom Holdings SOC Limited
PO Box 1091
JOHANNESBURG
2000

Telephone number: (011) 800 3501
Email Address: HerbstDL@eskom.co.za

PER EMAIL / MAIL

Dear Mr Herbst

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998: GN R. 543/544/545/546 FOR THE PROPOSED 65.9 MW TUTUKA PHOTOVOLTAIC (PV) ENERGY FACILITY AND ITS ASSOCIATED INFRASTRUCTURE ON PORTIONS 4, 10, 11 AND 12 OF THE FARM PRETORIUS VLEY 374 IS, NEAR STANDERTON WITHIN LEKWA LOCAL MUNICIPALITY, MPUMALANGA 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 post: Private Bag X447,
Pretoria, 0001; or

By hand: Environment House
473 Steve Biko,
Arcadia,
Pretoria

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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.

Appeals must be submitted in writing to:

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

Tel: (012) 399 9356

Email: AppealsDirectorate@environment.gov.za

The authorised activities must not commence within twenty (20) days of the date of signature of the environmental authorisation. Further, please note that in terms of section 43(7) of the National Environmental Management Act, 1998, an appeal under section 43 of that Act 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.

Yours faithfully



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

Date: 12/10/2016

cc:	Ms Jo- Anne Thomas	Savannah Environmental	Tel: (011) 656 3237	Email: joanne@savannahsa.com
	Mr G Batchelor	Mpumalanga: DEDET	Tel: (082) 771 7998	Email: gbatchelor@mpg.gov.za
	Mr J Sindane	Lekwa Local Municipality	Tel: (017) 712 9600	Email: admin@lekwalm.gov.za

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 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 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 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 65.9MW Tutuka Photovoltaic (PV) Solar Energy Facility and its associated infrastructure on Portions 4, 10, 11 and 12 of the farm Pretorius Vley 374 IS near Standerton within the Lekwa Local Municipality in the Mpumalanga Province

Gert Sibande District Municipality

Authorisation register number:	<i>14/12/16/3/3/2/754</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>Eskom Holdings SOC Limited</i>
Location of activity:	<i>Portion 4, of the farm Pretorius Vley 374 IS Portion 10 of the farm Pretorius Vley 374 IS Portion 11 of the farm Pretorius Vley 374 IS Portion 12 of the farm Pretorius Vley 374 IS Lekwa Local Municipality Mpumalanga 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.

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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:

ESKOM HOLDING SOC LIMITED

with the following contact details –

Ms Deidre Herbst

Eskom Holdings SOC Limited

PO Box 1091

JOHANNESBURG

2000

Telephone number: (011) 800 3501

Fax number: (086) 660 6092

Cell phone Number: (083) 660 1147

E-mail Address: HerbstDL@eskom.co.za

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

Activity in terms of the relevant notice	Listed activity as per project description
<p><u>GN R. 544 Item 10:</u></p> <p><i>"The construction of facilities or infrastructure for the transmission and distribution of electricity:</i></p> <p><i>(i) Outside urban areas or industrial complexes with a capacity of more than 33 kilovolts but less than 275 kilovolts."</i></p>	<p>The facility will require the construction of an on-site substation and an overhead distribution power line outside an urban area, with a capacity of less than 275kV.</p> <p><i>The on-site substation will be ~100m². The power line servitude width will be between 9m to 15.5m (measured from the centre line of the power line). The length will be 1800m and the height of the towers a maximum 13m. The capacity is 11kV/132kV power line and 132kV substation</i></p>
<p><u>GN 544, activity 11:</u></p> <p><i>"The construction of:</i></p> <p><i>(x) buildings exceeding 50 square metres in size; or</i></p> <p><i>(xi) infrastructure or structures covering 50 square metres or more</i></p> <p><i>Where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse."</i></p>	<p>The PV facility will include the construction of buildings (workshop area and site office) and infrastructures (underground cabling, panels) ~150m² within 32 metres of a watercourse.</p>
<p><u>GN R. 544 Item 18:</u></p> <p><i>"The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock or more than 5 cubic metres from</i></p> <p><i>(i) a water course"</i></p>	<p>Construction of the PV facility requires the infilling or excavation and removal of soil of more than 5 cubic metres from a watercourse.</p>
<p><u>GN R. 544 Item 22:</u></p> <p><i>"The construction of a road, outside urban areas,</i></p> <p><i>(ii) where no road reserve exists where the road is wider than 8 metres."</i></p>	<p>The facility will require the construction of new internal access roads within the site which will be wider than 8m in width (up to 13m in width), to be constructed outside urban areas.</p>

Activity in terms of the relevant notice	Listed activity as per project description
<p><u>GN R. 544 Item 47:</u></p> <p><i>"The widening of a road by more than 6 metres,</i> <i>(ii) Where no reserve exists, where the existing road</i> <i>is wider than 8 metres".</i></p>	<p>The facility will require the widening/lengthening of existing access roads to the site by more than 6 metres where no reserve exists, and where the existing road is wider than 8 metres.</p>
<p><u>GN R. 545 Item 1:</u></p> <p><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 PV facility will generate an electricity output of more than 20MW. The proposed facility will consist of arrays of photovoltaic (PV) panels with an electricity output of up to 65.9MW.</p>
<p><u>GN R. 545 Item 15:</u></p> <p><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>Total area of land to be developed for the facility is larger than 1 hectare. The area required for the development is ~99 ha.</p>

The following activities are similarly listed activities in terms of the 2014 Regulations and are included in the Environmental Authorisation.

Activity in terms of the relevant notice	Listed activity as per project description
<p><u>GN R 983 Activity 11:</u></p> <p><i>"The development of facilities or infrastructure for the transmission and distribution of electricity-</i> <i>(i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts."</i></p>	<p>The facility will require the construction of an on-site substation and an overhead distribution power line outside an urban area, with a capacity of less than 275kV.</p>
<p><u>GN R 983 Activity 12:</u></p> <p><i>"The development of-</i> <i>(xii) infrastructure or structures with a physical footprint of 100 square metres or more;</i> <i>where such development occurs-</i> <i>(a) within a watercourse, or</i> <i>(c) within 32m of a watercourse."</i></p>	<p>The PV facility will include the development of infrastructure exceeding 50 square metres in size (workshop area, site office and underground cabling, panels) within 32 metres of a watercourse.</p>

Activity in terms of the relevant notice	Listed activity as per project description
<p><u>GN R 983 Activity 19:</u></p> <p><i>"The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from-</i> <i>(i) a watercourse."</i></p>	<p>Construction of the PV facility will require the infilling or excavation and removal of soil of more than 5 cubic metres from a watercourse.</p>
<p><u>GN R983 Activity 24:</u></p> <p><i>"The development of-</i> <i>(ii) a road with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres."</i></p>	<p>The facility will require the construction of new internal access roads within the site which will be wider than 8m in width (up to 13m in width), to be constructed outside urban areas.</p>
<p><u>GN R983 Activity 28:</u></p> <p><i>"Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development:</i> <i>(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare."</i></p>	<p>Total area of land to be developed for the facility is larger than 1 hectare. The area required for the development is ~99 ha</p>
<p><u>GN R 983 Activity 56:</u></p> <p><i>"The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre-</i> <i>(ii) where the existing reserve is wider than 13,5 meters."</i></p>	<p>The facility will require the widening/lengthening of existing access roads to the site by more than 6 metres where no reserve exists, and where the existing road is wider than 8 metres.</p>
<p><u>GN R 984 Activity 1:</u></p> <p><i>"The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more."</i></p>	<p>The PV facility will generate an electricity output of more than 20MW. The proposed facility will consist of arrays of photovoltaic (PV) panels with an electricity output of up to 65.9MW.</p>

as described in the Environmental Impact Assessment Report (EIAR) dated July 2016 at:

21 SG Code:

Tutuka PV facility

T	0	1	S	0	0	0	0	0	0	0	0	0	3	7	4	0	0	0	0	4
T	0	1	S	0	0	0	0	0	0	0	0	0	3	7	4	0	0	0	1	0
T	0	1	S	0	0	0	0	0	0	0	0	0	3	7	4	0	0	0	1	1
T	0	1	S	0	0	0	0	0	0	0	0	0	3	7	4	0	0	0	1	2

Alternative (preferred site)	Latitude	Longitude
Western Section	26° 46' 58.894" S	29° 21' 10.338" E
	26° 47' 07.475" S	29° 21' 11.189" E
	26° 47' 06.482" S	29° 21' 06.721" E
Eastern Section	26° 46' 53.433" S	29° 21' 10.905" E
	26° 46' 51.518" S	29° 21' 34.948" E
	26° 46' 52.133" S	29° 21' 34.782" E
	26° 46' 52.917" S	29° 21' 34.844" E
	26° 46' 57.251" S	29° 21' 34.522" E
	26° 46' 59.182" S	29° 21' 33.723" E
	26° 47' 00.237" S	29° 21' 33.576" E
	26° 47' 01.215" S	29° 21' 33.450" E
	26° 47' 01.919" S	29° 21' 33.441" E
	26° 47' 03.159" S	29° 21' 33.637" E
	26° 47' 03.609" S	29° 21' 33.799" E
	26° 47' 04.058" S	29° 21' 34.015" E
	26° 47' 10.346" S	29° 21' 33.548" E
	26° 47' 10.921" S	29° 21' 33.383" E
	26° 47' 12.249" S	29° 21' 32.780" E
	26° 47' 12.562" S	29° 21' 32.680" E
	26° 47' 07.972" S	29° 21' 12.324" E
Tutuka PV substation	26° 46' 53.355" S	29° 21' 11.882" E
	26° 46' 53.290" S	29° 21' 12.690" E
	26° 46' 53.899" S	29° 21' 12.733" E
	26° 46' 53.967" S	29° 21' 11.945" E

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Power Line: Starting Point (0m) –	26° 46' 53.656" S	29° 21' 11.086" E
250m	26° 46' 46.310" S	29° 21' 09.570" E
500m	26° 46' 46.984" S	29° 21' 00.548" E
End Point (510m) – start of underground cable	26° 46' 47.010" S	29° 21' 00.196" E

- for the construction of the 65.9 MW Tutuka PV Solar Energy Facility and its associated infrastructure on Portions 4, 10, 11 and 12 of the farm Pretorius Vley 374 IS near Standerton within Lekwa Local Municipality, Mpumalanga Province, hereafter referred to as "the property".

The proposed Tutuka PV Solar Facility would consist of the following:

- Solar panels (fixed/tracking technology) with a net generation capacity of up to 65.9MW.
- Mounting structures for the solar panels to be rammed steel piles or piles with pre-manufactured concrete footings, or ground screws to support the PV panels.
- Central inverter/transformer stations to collect all energy generated from the PV panels. The inverter's role is to convert direct current (DC) electricity to alternating current (AC) electricity at grid frequency.
- An on-site substation or switching station.
- A power line to facilitate the connection of the solar energy facility from the on-site substation to Tutuka power station or nearest grid connection within the Tutuka power station.
- Internal access roads.
- Associated buildings including a workshop area for maintenance, storage, and control facility with basic services such as water and electricity.

Technical details for the proposed facility:

Component	Description/ Dimensions
Electricity Generating capacity	65.9MW
Extent of the proposed development footprint	99ha
Site access	Access to the site is provided from the R38 that runs east of the boundary of the proposed site and that connects the town of Standerton and Bethal. Internal access roads of up to 5m wide will also be required.

Proposed technology and Height of installed panels from ground level	Static PV - Fixed mounted PV up to 3.5 m above ground Tracking – single/double axis up to 6 m
Main transformer / onsite substation capacity and size	Step-up up to 6.6/11 kV (for connection at station board) Step-up up to 88/132 kV (for connection at HV yard) on site substation size approximately 50m x 50m
Associated buildings (size)	±150 m ²
New overhead power line	Servitude width: depending upon the overhead voltage level (between 9 m to 15.5 m : measured from the centre line of the power line) Length: approximately 200 - 400 m Height of towers: maximum height of 13 m

Conditions of this Environmental Authorisation

Scope of authorisation

1. The construction of the 65.9 MW Tutuka PV Solar Energy Facility and its associated infrastructure on Portions 4, 10, 11 and 12 of the farm Pretorius Vley 374 IS near Standerton within Lekwa Local Municipality in the Mpumalanga Province described above is hereby 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 five (05) 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 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:

- 12.1. Position of solar facilities and its associated infrastructure;
 - 12.2. All sensitive features e.g. heritage sites, wetlands, pans and drainage channels that will be affected by the facility and its associated infrastructure;
 - 12.3. All existing infrastructure on the site, e.g. roads, buildings, substations, powerlines etc.; and,
 - 12.4. All "no-go" and buffer areas.
13. 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

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Telephone Number: (012) 399 9406

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 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.
15. The EMPr amendment must include the following:
 - 15.1. All recommendations and mitigation measures recorded in the EIAr and specialist studies attached as part of the EIAr.
 - 15.2. The requirements and conditions of this environmental authorisation.
 - 15.3. 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.
 - 15.4. 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.
 - 15.5. 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.
 - 15.6. 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.
 - 15.7. 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.

- 15.8. 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.
- 15.9. 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.
- 15.10. A fire management plan to be implemented during the construction and operation of the facility.
- 15.11. An environmental sensitivity map indicating environmentally sensitive areas and features identified during the EIA process.
- 15.12. The final site layout map.
- 15.13. 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 EIAR and this environmental authorisation.
16. 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.
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.

Environmental Control Officer (ECO) and duties

19. The holder of this environmental authorisation must appoint an independent and qualified Environmental Control Officer (ECO) with experience or expertise in undertaking ECO functions. The ECO will have the responsibility to ensure that the conditions referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.
20. The ECO must be appointed before commencement of any authorised activity.
21. Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of this Department.
22. 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.

23. 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.
24. Records relating to monitoring and auditing must be kept on site and made available for inspection to the competent authority in respect of this development.
25. The duties of the ECO must include the following:
 - 25.1. Keeping record of all activities on site, problems identified, transgressions noted and a schedule of tasks undertaken by the ECO.
 - 25.2. Keeping and maintaining 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. Keeping and maintaining a daily site diary.
 - 25.4. Keeping copies of all reports submitted to the Department.
 - 25.5. Keeping and maintaining a schedule of current site activities including the monitoring of such activities.
 - 25.6. Obtaining and keeping 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. Compiling a monthly monitoring report.

Recording and reporting to the Department

26. The holder of this environmental authorisation must keep all records relating to monitoring and auditing on site and make them 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 environmental 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:
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- 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 must not commence within twenty (20) days of the date of signature of the environmental authorisation.
31. 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.

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. This notification period may coincide with the Notice of Intent to Appeal period.

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 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

35. A 30m buffer must be placed around all the wetland areas as indicated by the Wetland specialist. The buffer and its sensitivity 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.
36. The footprint of the development including vegetation clearing must be limited to the areas required for actual construction works and operational activities.
37. 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. Contractors and construction workers must be clearly informed of the no-go areas.
38. 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.
39. 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. 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. Copies of the permits must be kept by the ECO.
40. Before commencement, the appropriate water use license must be obtained from the Department of Water and Sanitation.

41. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
 42. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
 43. Anti-erosion measures such as silt fences must be installed in disturbed areas.
 44. Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information.
 45. Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated.
 46. Should abnormal loads have to be transported by road to the site, a permit must be obtained from the relevant Provincial and National Transport Authority.
 47. Cleared alien vegetation must be temporarily stored in a demarcated area. Once clearing is completed, they must be moved to a licenced waste disposal facility.
 48. An integrated waste management approach must be implemented that is based on waste minimisation. Where waste is disposed of, such disposal shall only occur at a landfill licensed in terms of the National Environment Management Waste Act, 2008 (Act 59 of 2008).
 49. 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.
 50. 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.
 51. Borrow materials must be obtained only from authorized and permitted sites. Permits must be kept on site by the ECO.
 52. Appropriate dust suppression techniques must be implemented on all exposed surfaces during the construction phase. Such measures must include wet suppression, chemical stabilisation, the use of a wind fence, covering surfaces with straw chippings and re-vegetation of open areas.
 53. 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.
 54. Any vegetation clearing that needs to take place as part of maintenance activities (during the operational phase of the approved development), must be done in accordance to the approved EMPr.
 55. 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.
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56. The holder of the authorisation must comply with the Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983) articles 7. 1 and (3) b of Regulation 9238.
57. 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.
58. 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.
59. Any fauna directly threatened by the construction activities must be removed to a safe location by a suitably qualified person.
60. The washing of panels during maintenance must be done with water and/or biodegradable cleaning agent which is not harmful / non-toxic to avoid soil contamination and poisoning of small animals.
61. 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.
62. Electric fencing should not have any strands within 30cm of the ground, and must 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.
63. 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. The poles should be fitted with bird perches on top of the poles to draw birds, particularly vultures away from the potentially risky insulators. All pylons to be constructed should make use of "bird friendly" structures, fitted with a bird perch, as per Eskom standard guidelines.
64. 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 need to be implemented.
65. The recommendations of the EAP in the EIAR dated July 2016 and the specialist studies 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.

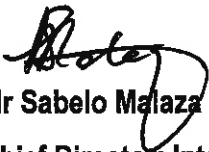
General

66. A copy of this environmental authorisation and the approved EMPr must be kept at the property where the activity will be undertaken. The environmental 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 environmental authorisation who undertakes work at the property.

67. National government, provincial government, local authorities or committees appointed in terms of the conditions of this environmental authorisation or any other public authority shall not be held responsible for any damages or losses suffered by the holder of the environmental 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 environmental authorisation with the conditions of environmental authorisation as set out in this document or any other subsequent document emanating from these conditions of environmental authorisation.

Date of environmental authorisation: 12/10/2016



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 amended application form dated 01 July 2016;
- b) The information contained in the EIAr dated July 2016;
- c) The comments received from: the South African Heritage Resources Agency (SAHRA), Mpumalanga Department of Agriculture, Rural Development, Land and Environmental Affairs, Telkom, and interested and affected parties as included in the EIAr dated July 2016;
- d) Mitigation measures as proposed in the EIAr dated July 2016 and the draft EMPr;
- e) The information contained in the specialist studies contained within appendices of the EIAr dated July 2016 and as appears below:

Title	Prepared by	Date
Avifaunal Impact Assessment	Feathers Environmental Services	February 2016
Ecological Impact Assessment Report	Savannah Environmental Pty Ltd	March 2015
Archaeological Impact Assessment Report	Heritage Contracts and Archaeological Consulting	September 2015
Palaeontological Heritage Impact Assessment Report	BM Geological Services	November 2014
Visual Impact Assessment Report	Afzelie Environmental Consultants and Environmental Planning and Design	October 2015
Social Impact Assessment	Savannah Environmental Pty Ltd	October 2015
Soil and Agriculture Potential Study	ARC-Institute	October 2015
Wetland Impact Assessment Report	Limosella Consulting	February 2015

- 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.
- d) The EIAr dated July 2016 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- e) The 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.
- f) The methodology used in assessing the potential impacts identified in the EIAr dated July 2016 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 dated July 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 July 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 and will be implemented to manage the identified environmental impacts during the construction process.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the environmental authorisation, the approved 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.