



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Private Bag X 447· PRETORIA · 0001· Environment House · 473 Steve Biko Road, Arcadia · PRETORIA

DEA Reference: 14/12/16/3/3/2/1093

Enquiries: Ms Bathandwa Ncube

Telephone: (012) 399 9368 E-mail: BNcube@environment.gov.za

Mr Robert Wagener
ABO Wind Lichtenburg 3 PV (Pty) Ltd
PO Box 51060
WATERFRONT
Cape Town
8002

Tel : 021 418 2596

Email : Robert.wagener@abo-wind.com

PER E-MAIL / MAIL

Dear Mr Wagner

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED: GN R982, R983, R984 AND R985, AS AMENDED: THE DEVELOPMENT OF LICHTENBURG 3 PV SOLAR ENERGY FACILITY AND ASSOCIATED INFRASTRUCTURE NEAR LICHTENBURG, WITHIN THE DITSOBOTLA LOCAL MUNICIPALITY, NORTH WEST PROVINCE

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

In terms of Regulation 4(2) of the National Environmental Management Act: the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing within 14 (fourteen) days of the date of this EA, of the Department's decision as well as the provisions regarding the submission of appeals that are contained in the Regulations.

In terms of the Promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), you are entitled to the right to fair, lawful and reasonable administrative action; and to written reasons for administrative action that affects you negatively. Further your attention is drawn to the provisions of the Protection of Personal Information Act, 2013 (Act no. 4 of 2013) which stipulates that the Department should conduct itself in a responsible manner when collecting, processing, storing and sharing an individual or another entity's personal information by holding the Department accountable should the Department abuse or compromise your personal information in any way.

Your attention is drawn to Chapter 2 of National Environmental Management Act, 1998 (Act No. 107 of 1998) National Appeal Regulations published under Government Notice R993 in Government Gazette No. 38303 dated 08 December 2014 (National Appeal Regulations, 2014), which prescribe the appeal procedure to be followed. Kindly include a copy of this document (National Appeal Regulations, 2014) with the letter of notification to interested and affected parties in this matter.

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:

The 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

By post: Private Bag X447
Pretoria
0001

Please note that in terms of Section 43(7) of the NEMA, 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 any activity authorised in the EA 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: 03/07/2019

cc:	Savannah Environmental (Pty) Ltd.	Jo-Anne Thomas	Tel: 011 656 3237	Email: karen@savannahsa.com Lisa.o@savannahsa.com
	North West Department of Rural, Environmental and Agricultural Development	Eva Mahlangu	Tel: 018 389 5156	Email: emahlangu@nwpg.gov.za
	Ditsobotla Local Municipality	L.J. Dintwe	Tel: 018 632 6955	Email: leefodin@gmail.com



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

In terms of Regulation 25 of the Environmental Impact Assessment Regulations, 2014 (as amended)

The development of the 100MW Lichtenburg 3 Photovoltaic Solar Energy Facility and associated infrastructure, near Lichtenburg, within the Ditsobotla Local Municipality in the North West Province

Ngaka Modiri Molema District Municipality

Authorisation register number:	<i>14/12/16/3/3/2/1093</i>
Last amended:	<i>First issue</i>
Holder of authorisation:	<i>ABO Wind Lichtenburg 3 PV (Pty) Ltd</i>
Location of activity:	<i>Remaining Extent of Portion 2 of the Farm Zamenkomst No. 4 Ward 16, Ditsobotla Local Municipality; Ngaka Modiri Molema 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, as amended and the EIA Regulations, 2014, as amended.

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), as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

ABO WIND LICHTENBURG 3 PV (PTY) LTD

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

with the following contact details –

Mr Robert Wagener

ABO Wind Lichtenburg 3 PV (Pty) Ltd

PO Box 51060

WATERFRONT

Cape Town

8002

Telephone Number: 021 418 2596

Cell phone Number: 064 030 3633

E-mail Address: Robert.wagener@abo-wind.com

to undertake the following activities (hereafter referred to as "the activity") indicated in Listing Notice 1, Listing Notice 2 and Listing Notice 3 (GN R.983, R.984 and R.985 as amended):

Listed Activities	Activity Description
<p><u>GN R. 983 Activity 11(i) (as amended):</u> <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 project entails the construction of a new 88/132kV on-site substation and 88/132kV power line required to evacuate electricity generated by the project into the national electricity grid.</p>
<p><u>GN R. 983 Activity 24 (ii) (as amended):</u> <i>The development of a road-</i> <i>(ii) 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 project includes the development of permanent access roads, including a main access road and internal access roads. The main access road proposed for development will be 10m wide and will be tarred if necessary.</p>
<p><u>GN R. 983 Activity 28 (ii) (as amended):</u> <i>Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes 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>The project comprises an industrial development and will result in the transformation of approximately 238Ha of land (equivalent to the size of the development footprint) which is currently utilised for agricultural purposes.</p>
<p><u>GN R. 984 Activity 1 (as amended):</u> <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 project comprises a renewable energy generation facility, which will utilise photovoltaic (PV) technology and will have a generation capacity of up to 100MW. The development is located outside of an urban area and is proposed to be ground-mounted.</p>

<p><u>GN R. 984 Activity 15 (as amended):</u> <i>The clearance of an area of 20 hectares or more of indigenous vegetation</i></p>	<p>The project requires the clearance of an area up to 238Ha (equivalent to the development footprint) of vegetation. The project is proposed on an agricultural property where the predominant land use is livestock grazing, and is therefore likely to comprise indigenous vegetation. The project would therefore result in the clearance of an area of land greater than 20Ha of indigenous vegetation.</p>
<p><u>GN R. 985 Activity 12(h)(vi) (as amended):</u> <i>The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</i> (h) North West: vi. <i>Areas within a watercourse or wetland, or within 100 metres from the edge of a watercourse or wetland.</i></p>	<p>The project requires the clearance of an area up to 238Ha (equivalent to the development footprint) of vegetation. The project is proposed on an agricultural property where the predominant land use is livestock grazing, and is therefore likely to comprise indigenous vegetation. The project would therefore result in the clearance of an area of land greater than 20Ha of indigenous vegetation.</p> <p>One depression wetland is confirmed within the central section of the project site. Therefore an area of 300 square metres or more of vegetation will be cleared within 100m of a wetland.</p>

as described in the Environmental Impact Assessment Report (EIAr) dated March 2019 at:

Farm Description	21 Digit Surveyor General Code
Remaining Extent of Portion 2 of the Farm Zamenkomst No. 4	T0IP00000000000400002

PV SEF Preferred Development Site: Alternative 1 (~238Ha)	Latitude	Longitude
Corner -1	26° 02' 09.299" S	26° 07' 23.365" E
Corner -2	26° 02' 10.838" S	26° 08' 22.504" E

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Corner -3	26° 02' 22.006" S	26° 08' 23.133" E
Corner -4	26° 02' 26.207" S	26° 08' 11.805" E
Corner -5	26° 02' 31.112" S	26° 08' 11.760" E
Corner -6	26° 02' 30.671" S	26° 08' 26.456" E
Corner -7	26° 02' 39.037" S	26° 08' 26.393" E
Corner -8	26° 02' 40.159" S	26° 08' 25.402" E
Corner -9	26° 02' 52.735" S	26° 08' 27.824" E
Corner -10	26° 02' 12.460" S	26° 07' 35.180" E
Corner -11	26° 02' 12.402" S	26° 07' 23.473" E

Preferred Powerline Route: Alternative 1 (~210m)	Latitude	Longitude
On-site substation	26° 02' 47.651" S	26° 07' 32.275" E
Middle	26° 02' 48.087" S	26° 07' 28.660" E
Mmabatho/ Watershed DS 1 88kV power line	26° 02' 48.523" S	26° 07' 25.039" E

Preferred On-Site Substation: Alternative 1	Latitude	Longitude
North West Corner	26° 02' 45.270" S	26° 07' 31.833" E
North East Corner	26° 02' 44.751" S	26° 07' 37.244" E
South West Corner	26° 02' 50.116" S	26° 07' 32.702" E
South East Corner	26° 02' 49.602" S	26° 07' 38.105" E
Centre Point	26° 02' 47.267" S	26° 07' 35.115" E

- for the proposed 100MW Lichtenburg 3 Photovoltaic (PV) Solar Energy Facility (SEF on the Remaining Extent of Portion 2 of the Farm Zamenkomst No. 4, and overhead powerline grid connection, near Lichtenburg, within the Ditsobotla Local Municipality in the North West Province, hereafter referred to as "the property".

The Lichtenburg 3 PV SEF will comprise the following:

- Photovoltaic modules with a net generation (contracted) capacity of 100MW;
- On-site 88/132kV substation;
- Mounting structures (fixed tilt/static, single axis or double axis tracking systems) for the PV arrays and related foundations;
- DC/AC Inverters, LV/MV power transformers and internal electrical reticulation (underground cabling);



- Access and internal road network;
- A new 132kV overhead powerline from the on-site substation to the Mmabatho/ Watershed DS 1 88kV power line;
- Access road and internal roads;
- Temporary laydown area;
- Auxiliary buildings (gate-house and security, control centre, office, two warehouses, canteen & visitors centre, rainwater tanks etc.);
- Rainwater tanks; and
- Perimeter fencing.

Technical details of the Solar Energy Facility

Component	Description / dimensions
Location of the site	Approximately 10km north of Lichtenburg and 7km south-east of Bakerville.
Total property size	429 Ha
Development footprint size	238 Ha
Area of PV Array	213 Ha
Height of PV panels	~3.5 m
Number of inverters required	To be determined at detailed design phase based on the inverter sizes available at the time of construction
Area occupied by inverter/ transformer stations/ substations	The inverter stations will be located within the area of PV Array. The transformer stations will be located within the substation complex.
Capacity of onsite substation complex	22/132 kV or 33/132 kV
Area occupied by onsite substation complex	~2.25 Ha
Height of onsite substation complex infrastructure	~5 m
Area occupied by both permanent and construction laydown areas	Temporary construction areas with a combined maximum size of ~4 Ha. No permanent laydown areas proposed.
Area occupied by buildings	~1 Ha area for site office and Operations and Maintenance (O&M) buildings.
Length of internal roads	~20 km
Width of internal roads	~5 m

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Component	Description / dimensions
Proximity to grid connection	≤10 km
Height of grid connection	~24 m
Height of fencing	~3 m
Type of fencing	To be determined at construction phase based on the outcomes of the EPC procurement process.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The 100MW Lichtenburg 3 Photovoltaic (PV) Solar Energy Facility (SEF on the Remaining Extent of Portion 2 of the Farm Zamenkomst No. 4, and associated infrastructure on the Remaining Extent of Portion 2 of the Farm Zamenkomst No. 4, near Lichtenburg, within the Ditsobotla Local Municipality in the North West Province is hereby **approved** as per the geographic coordinates indicated above.
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 must 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. Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities.

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 14 (fourteen) 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 the National Appeal Regulations, 2014;
 - 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.

Commencement of the activity

11. The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014, and no appeal has been lodged against the decision. In terms of Section 43(7), an appeal under Section 43 of the National Environmental Management Act, Act No. 107 of 1998, as amended 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

12. A copy of the final Site Development/ layout Plan 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 plan (Size A3) must be submitted to the Department for written approval prior to commencement of the activity. All available biodiversity

information must be used in the finalisation of the layout plan. Existing infrastructure must be used as far as possible e.g. roads. The layout map must indicate the following:

- 12.1. Photovoltaic panels;
 - 12.2. Steel arrays and racks on concrete foundations;
 - 12.3. Cable routes (where they are not along internal roads);
 - 12.4. Internal roads indicating width and length;
 - 12.5. Wetlands, drainage lines, rivers, stream and water crossing of roads and cables;
 - 12.6. All sensitive features e.g. Critical Biodiversity Areas, Ecological Support Areas, heritage sites, wetlands, pans and drainage channels that will be affected by the facility and associated infrastructure;
 - 12.7. Substation(s) inverters and/or transformer(s) sites including their entire footprint;
 - 12.8. Connection routes (including pylon positions) to the distribution/transmission network;
 - 12.9. All existing infrastructure on the site, such as roads;
 - 12.10. Soil heaps (temporary for topsoil and subsoil and permanently for excess material);
 - 12.11. Buildings, including accommodation; and,
 - 12.12. All "no-go" and buffer areas.
13. Furthermore, a shapefile of the approved development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1:10 000 (please specify if an alternative scale was used). The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title.

The shape file must be submitted to:

Postal Address: Department of Environmental Affairs
Private Bag X447
Pretoria
0001

Physical address: Department of Environmental Affairs
Environment House

473 Steve Biko

Arcadia

Pretoria

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

Telephone Number: (012) 399 9406

E-mail Address: MEssop@environment.gov.za

14. The Environmental Management Programme (EMPr) submitted as part of the EIAr is hereby **approved**. This EMPr must be implemented and strictly adhered to.
15. Changes to the approved EMPr must be submitted to this Department for approval before such changes could be effected.
16. The Department reserves the right to amend the EMPr (once approved) should any impacts that were not anticipated or covered in the EIAr be discovered.

Frequency and process of updating the EMPr

17. 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.
18. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
19. 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.
20. 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 as amended. 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.

21. The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The amendment process is prescribed in Regulation 37 of GN R.982, as amended. The holder of the authorisation must request comments on the proposed amendments to the impact management outcomes of the EMPr or amendments to the closure objectives of the closure plan from potentially interested and affected parties, including the competent authority, by using any of the methods provided for in the Act for a period of at least 30 days.

Monitoring

22. 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.
- 22.1. The ECO must be appointed before commencement of any authorised activities.
- 22.2. 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.
- 22.3. The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.
- 22.4. 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

23. 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.
24. 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.
25. 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, as amended.

26. 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.
27. The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014, as amended, 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.
28. 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

29. 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

30. 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

31. 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

32. The recommendations of the EAP in the final EIAR dated March 2019 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.

33. The development must comply with the North West Biodiversity Plan, Bophuthatswana Nature Conservation Ordinance Act, 1973 and National Freshwater Ecosystem Priority Areas Assessment.
 34. 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.
 35. The final development footprint must remain outside of the no-go areas, to avoid impacts of high sensitive areas.
 36. The depression wetland and the associated 35m buffer must be regarded as No-Go Areas and be excluded from the development footprint.
 37. The buffer areas recommended around the depression wetland should be implemented and the vegetation cover should be maintained to allow efficient functioning of the buffer area.
 38. A pre-construction walk-through of the final development footprint must be undertaken by ecological, avifaunal, and heritage specialists prior to the commencement of the construction phase for the identification of buffers, sensitive sites, no-go areas and species of conservation concern that would be affected and that can be translocated.
 39. Great care must be taken not to damage the *Acacia Erioloba* (Came! Thorn) trees and the trees must be treated as no-go areas.
 40. All protected fauna and flora species of conservation concern must not be disturbed or removed prior to permit approval by relevant authorities. Copies of the permits must be made available to this Department on request.
 41. All equipment and infrastructure must comply with the Radio Astronomy Protection Levels Regulations. Transmitters established for the purposes of voice and data communication must also comply with the relevant regulations concerning the restriction of use of the radio frequency spectrum that applies in the area concerned.
 42. The footprint of the development must be limited to the areas required for actual construction works and operational activities. Vegetation clearing must be limited to the required footprint.
 43. All existing roads and storage sites must be used where possible.
 44. Construction must include 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.
 45. Periodical inspection of panels to remove and discourage avifaunal nesting is encouraged. Any nest sites must be removed by a qualified avifaunal specialist.
 46. The washing of panels during maintenance must be done with biodegradable soaps to avoid soil contamination and poisoning of small animals.
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47. Suitable bird repelling structures and bird diverters must be considered to avoid collision of birds with the powerlines.
 48. During operation, any electrocution and collision events that occur should be recorded, including the species affected and the date. If repeated collisions occur within the same area, then, further mitigation and avoidance measures may need to be implemented.
 49. Liaison with land owners/farm managers must be done prior to construction in order to provide sufficient time for them to plan agricultural activities.
 50. Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.
 51. The ECO must ensure that any double fencing associated with the facility allows for free movement of small mammals and avifauna.
 52. All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities shall be undertaken according to the EMPr.
 53. Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.
 54. Cleared alien vegetation must not be dumped on adjacent intact vegetation during clearing but must be temporarily stored in a demarcated area.
 55. A designated access to the site must be created and clearly marked to ensure safe entry and exit.
 56. Site access must be controlled and no unauthorized persons must be allowed onto the site.
 57. Construction vehicles carrying materials to the site should avoid using roads through densely populated built-up areas so as not to disturb existing retail and commercial operations.
 58. Should abnormal loads have to be transported by road to the site, a permit must be obtained from the relevant authorities.
 59. All construction vehicles must adhere to clearly defined and demarcated roads. Construction vehicles must not drive outside of the development footprint.
 60. 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.
 61. Ablution facilities must be placed outside of the 1:100 year floodline of a watercourse.
 62. Any waste storage facility must be located away from the water bodies.
 63. Open trenches must be fenced off and monitored at all times to avoid injuries to people and animals.
 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.
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65. Borrow materials must be obtained only from authorised and permitted sites. Permits must be kept on site by the ECO.
66. 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.
67. Potable water must not be used to mitigate dust nuisance.
68. Immediate rehabilitation/ re-vegetation must be done upon completion of construction activities.
69. Rehabilitation using local vegetation after construction is recommended to maintain the functionality and importance of these biodiversity areas. Continuous monitoring of the rehabilitation must be conducted.
70. The use of generators on site must include the use of drip trays.
71. A firebreak must be maintained around the development footprint to avoid potential fires occurring within the facility from spreading into the surrounding grasslands, subsequently posing a threat to faunal species occurring within the surrounding environment.
72. Road borders must be regularly maintained to ensure that vegetation remains short and that they therefore serve as an effective firebreak.
73. No unsupervised open fires for cooking or heating must be allowed on site.
74. An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate reduction, recycling, re-use and disposal where appropriate.
75. Any solid waste, which will not be recycled, must be disposed of at a landfill licensed in terms of section 20 (b) of the National Environment Management Waste Act, 2008 (Act No. 59 of 2008). No waste material may be left on site after construction.
76. If any evidence of archaeological sites or remains (e.g., remnants of stone-made structures, indigenous ceramics, bones, stone artefacts, ostrich eggshell fragments, marine shell and charcoal/ash concentrations), fossils or other categories of heritage resources are found during construction of the proposed development, SAHRA APM Unit (Natasha Higgitt/Phillip Hine 021 462 5402) must be alerted. If unmarked human burials are uncovered, the SAHRA Burial Grounds and Graves (BGG) Unit (Thingahangwi Tshivhase/Mimi Seetelo 012 320 8490), must be alerted immediately as per section 35(5) and 36(6) of the NHRA. A professional archaeologist or palaeontologist, depending on the nature of the finds, must be contacted as soon as possible to inspect the findings. If the newly discovered heritage resources prove to be of archaeological or palaeontological significance, a Phase 2 rescue operation may be required subject to permits issued by SAHRA.

General

77. A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMPr, must be made available for inspection and copying-
- 77.1. at the site of the authorised activity;
 - 77.2. to anyone on request; and
 - 77.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.
78. 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: 03/07/2019


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 24 August 2018.
- b) The information contained in the EIAr dated March 2019.
The comments received from BioTherm Energy (Pty) Ltd.; Eskom; South African Heritage Resources Agency (SAHRA); the South African Radio Astronomy Observatory (SARAO); the South African Civil Aviation Authority (SACAA); Vodacom; North West Department of Public Works and Roads; Department of Agriculture Forestry and Fisheries (DAFF); and interested and affected parties as included in the EIAr dated March 2019.
- c) Mitigation measures as proposed in the EIAr and the EMPr.
- d) The information contained in the specialist studies contained within the EIAr dated March 2019 and as appears below:

Title	Prepared by	Date
Ecological and Surface Hydrological Assessment	Nkurenkuru Ecology and Biodiversity (Pty) Ltd	November 2018
Avifauna Baseline Impact Assessment	Pachnoda Consulting cc.	October 2018
Soils, Land Use, Land Capability and Agricultural Potential Assessment	TerraAfrica Consult cc.	November 2018
Heritage Impact Assessment	Heritage CTS	November 2018
Visual Impact Assessment	LOGIS	January 2019
Social Impact Assessment	Savannah Environmental (Pty) Ltd.	November 2018
Traffic and Transportation Assessment	Knight Piesold Consulting	November 2018

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 motivation for the need and desirability of the development.
- c) The EIAr dated March 2019 identified all legislation and guidelines that have been considered in the preparation of the EIAr.
- d) The methodology used in assessing the potential impacts identified in the EIAr dated March 2019 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 Environmental Impact Assessment Regulations, 2014, as amended, for public involvement.

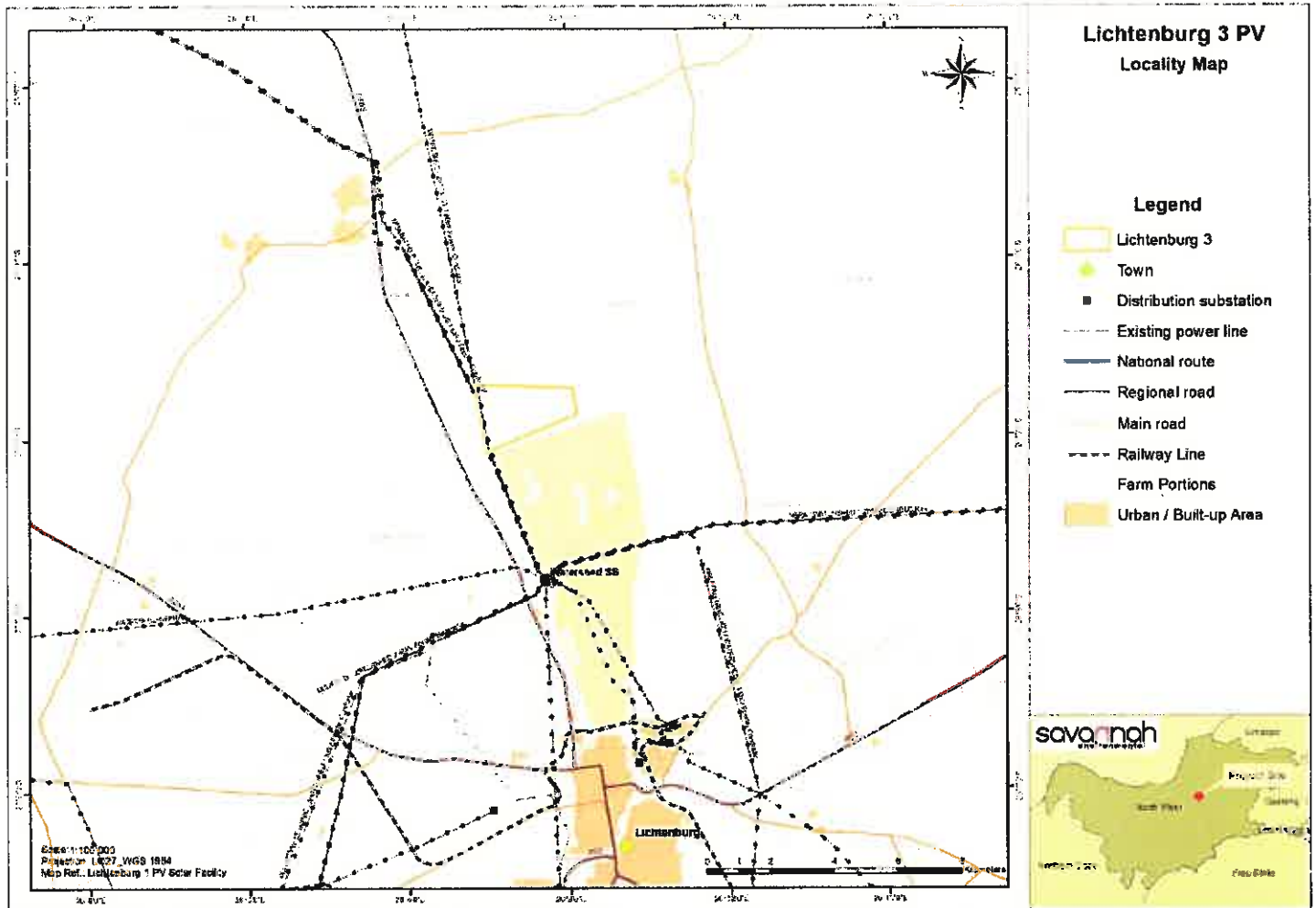
3. Findings

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 March 2019 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 information contained in the EIAr dated March 2019 is deemed to be accurate and credible.
- d) The proposed mitigation of impacts identified and assessed adequately curtails the identified impacts.
- e) EMPr measures for the pre-construction, construction and rehabilitation phases of the development were proposed and included in the EIAr dated March 2019 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, Act No. 107 of 1998, as amended, and that any potentially detrimental environmental impacts resulting from the authorised activities can be mitigated to acceptable levels. The environmental authorisation is accordingly granted.

Annexure 2: Locality Plan



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