



forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

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

DFFE Reference: 14/12/16/3/3/2/2277

Enquiries: Ms Olivia Letlalo

Telephone: (012) 399 8815 **E-mail:** oletlalo@dfffe.gov.za

Maxime Savinelli
Akvo Energy Afrique
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PER E-MAIL / MAIL

Dear Sir/ Madam Savinelli

ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT NO. 107 OF 1998, AS AMENDED FOR THE PROPOSED 240MW ZIONSHEUVEL SOLAR PV FACILITY AND ITS ASSOCIATED ELECTRICAL INFRASTRUCTURE ON REMAINDER OF FARM LEEUWBERG 79 WITHIN THE RENOSTERBERG LOCAL MUNICIPALITY IN THE NORTHERN CAPE PROVINCE

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

In terms of Regulation 4(2) of the Environmental Impact Assessment Regulations, 2014, as amended (the EIA Regulations), you are instructed to notify all registered interested and affected parties, in writing and within fourteen (14) days of the date of the 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, 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, Act No. 4 of 2013 which stipulate 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, 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 prescribes 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: appeals@dfre.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 National Environmental Management Act, Act No. 107 of 1998, as amended, the lodging of an appeal will suspend the environmental authorisation, or any provision or condition attached thereto. In the instance where an appeal is lodged, you may not commence with the activity until such time that the appeal is finalised.

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

Yours faithfully



Mr Sabelo Malaza
Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries, and the Environment
Date: 13/09/2023

cc	Ms Jo-Anne Thomas	Savannah Environmental (Pty) Ltd	Tel: 011 656 3237 Cell: 082 775 5628	Email: joanne@savannahsa.com
	Bryan Fisher	Northern Cape Department of Economic Development and Tourism	Tel: 082 270 8323	Email: Bfisher@ncpg.gov.za
	Mr M Hoogbaard, Municipal Manager	Renosterberg Local Municipality	Tel: 053 6630041	Email: email abbek@msn.com





forestry, fisheries & the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

Environmental Authorisation

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

240MW Zionsheuvel Solar PV Facility and its associated electrical infrastructure on the Remainder of the Farm Leeuwberg 79 within the Renosterberg Local Municipality in the Northern Cape Province

Pixley Ka Seme District Municipality

Application Register Number:	14/12/16/3/3/2/2277
Last amended:	First issue
Holder of authorisation	Akuo Energy Afrique
Location of activity:	on the Remainder of the Farm Leeuwberg 79 within the Renosterberg Local Municipality in the Northern Cape Province

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

MS

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, Act No. 107 of 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, Act No. 107 of 1998, as amended and the Environmental Impact Assessment Regulations, 2014, as amended, the Department hereby authorises –

Akuo Energy Afrique

with the following contact details –

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to undertake the following activities (hereafter referred to as “the activity”) indicated in Listing Notice 1, and Listing Notice 2 of the EIA Regulations, 2014 as amended:

Activity number	Activity description
<p><u>Listing Notice 1, Activity 11(i)</u></p> <p><i>The development 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 but less than 275 kilovolts or more excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is —</i></p> <p><i>(a) temporarily required to allow for maintenance of existing infrastructure,</i></p> <p><i>(b) 2 kilometres or shorter in length,</i></p> <p><i>(c) within an existing transmission line servitude; and</i></p> <p><i>(d) will be removed within 18 months of the commencement of development.</i></p>	<p>The development of Zionsheuvel Solar PV Facility will include a 33/132kV onsite substation (IPP portion).</p>
<p><u>Listing Notice 1, Activity 14</u></p> <p><i>The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</i></p>	<p>The development of Zionsheuvel Solar PV Facility will require the construction and operation of facilities and infrastructure for the storage and handling of dangerous goods (combustible and flammable liquids, such as oils, lubricants, solvents) associated with the on-site substation where such storage will occur inside containers with a combined capacity exceeding 80 cubic meters but not exceeding 500 cubic meters.</p>
<p><u>Listing Notice 1, Activity 24(ii):</u></p> <p>The development of a road –</p> <p>(ii) with a reserve wider than 13.5m, or where no reserve exists where the road is wider than 8m.</p>	<p>Access roads will be developed during the construction phase of the project. These will be 8m in width with a temporary reserve of 20m during construction.</p>

<p><u>Listing Notice 1, Activity 28(ii):</u></p> <p><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></p> <p><i>(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.</i></p>	<p>The total area to be developed for the PV facility and associated infrastructure is 576ha and occurs outside an urban area in an area currently zoned for agriculture.</p>
<p><u>Listing Notice 2, 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 MW or more, excluding where such development of facilities or infrastructure is for photovoltaic installations & occurs.</i></p> <p><i>(a) within an urban area; or</i></p> <p><i>(b) On existing infrastructure.</i></p>	<p>The Zionsheuvel Solar PV Facility will have a contracted capacity of 240MW.</p>
<p><u>Listing Notice 2, Activity 15:</u></p> <p><i>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for,</i></p> <p><i>(i) the undertaking of a linear activity; or</i></p> <p><i>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</i></p>	<p>Zionsheuvel Solar PV Facility will require the clearance of an area of 576ha for the development of the PV facility and associated infrastructure.</p>

as described in the final Environmental Impact Assessment (EIAR) dated July 2023.

Farm names and their portion numbers	21 Digit SG Codes
Remainder of Farm Leeuwberg 79	N075C0570000079000001

Project Site Coordinates	Latitude (S)	Longitude (E)
Northern point	30°13'8.77"S	24°26'5.17"E
Eastern point	30°15'15.08"S	24°25'51.01"E
Western point	30°14'35.49"S	24°22'15.87"E
Southern point	30°17'12.13"S	24°25'36.50"E
Centre point	30°14'54.42"S	24°24'31.10"E

- for the proposed 240MW Zionsheuveld Solar PV Facility and its associated electrical infrastructure on the Remainder of the Farm Leeuwberg 79 within the Renosterberg Local Municipality of the greater Pixley ka Seme District Municipality in the Northern Cape Province, hereafter referred to as "the property".

The proposed facility will have a proposed contracted capacity of 240MW and will include the following infrastructure:

- Solar PV array comprising PV modules and mounting structures (monofacial or bifacial and of fixed-tilt, single-axis tracking, and/or double-axis tracking PV technology).
- Inverters and transformers.
- Cabling between the project components.
- Battery Energy Storage System (BESS).
- On-site facility substation (IPP Portion).
- Site offices, Security office, operations and control, and maintenance and storage laydown areas.
- Access roads, internal distribution roads.

Details or dimensions of typical infrastructure required for the Project.

Infrastructure	Footprint and dimensions
Contracted Capacity	Up to 240MW
Number of Panels	▪ ~ 510, 000 units of 540Wp panels or higher capacity panels if available
Panel Height	▪ Up to 5m from ground level
Technology	▪ Use of fixed-tilt, single-axis tracking, and/or double-axis tracking PV technology. ▪ Monofacial or bifacial panels are both considered
Battery Energy Storage System (BESS)	▪ Standard 20ft HC ISO container with a capacity ranging from 200kWh to 2MWh. ▪ The total size of the Battery Energy Storage System will be determined at a later stage but could be up to 1 MWh per MW of solar PV, taking the assumption that 15% of daily consumption is stored resulting in a 240MWh BESS capacity. ▪ The use of containerized battery storage solutions, which capacity ranges from 200kWh to 2MWh, and which size is 6.06 x 2.44 x 2.90m. Considering circa. 30m ² footprint for a container, the total BESS footprint would be 1.15ha
Other infrastructures	▪ Operations building – ~ 500m ² ▪ Workshop – ~ 500m ² ▪ Stores - ~ 500m ²

Area occupied by laydown area	<ul style="list-style-type: none"> ▪ Temporary laydown areas to be used in construction: 1ha/100MW ▪ Permanent laydowns that will be used in operation: 0.25ha from temporary laydown area
Area occupied by the solar array	<ul style="list-style-type: none"> ▪ Footprint of the infrastructure should be ~576ha ▪ Laydown area: 2.5ha ▪ Buildings, workshops and store-rooms: 1ha
Area occupied by the substations	Facility substation: Not exceeding 2ha
Access and internal roads	<ul style="list-style-type: none"> ▪ A minimum required road width of 4m (up to 8m wide) needs to be maintained and all turning radii must conform with the specifications needed for the abnormal load vehicles and haulage vehicles. It needs to be ensured that the gravel sections of the haulage routes remain in good condition and will hence need to be maintained during the additional loading of the construction phase and then reinstated after construction is completed. The gravel roads will require grading with a grader to obtain a flat even surface and the geometric design of these gravel roads needs to be confirmed at detailed design stage. ▪ Main access road to the project site will be via the existing R48 gravel road. ▪ Internal access roads (gravel) of up to 8m in width within a temporary 20 m construction corridor will be required to access the PV facility.
Grid connection	<ul style="list-style-type: none"> ▪ The on-site IPP substation will increase the voltage level from 33kV to 132kV or possibly up to 275kV for transmitting the generated electric power to the proposed central collector substation (or switching station), where several projects totalling a capacity up to 500MVA will connect. ▪ The collector substation and the transmission line servitudes will be assessed as part of a separate Environmental Impact Assessment process.
Temporary infrastructure	<ul style="list-style-type: none"> ▪ Temporary infrastructure, including laydown areas, hardstand areas and a concrete batching plant, will be required during the construction phase. ▪ All areas affected by temporary infrastructure will be rehabilitated following the completion of the construction phase, where it is not required for the operation phase.

Conditions of this Environmental Authorisation

Scope of authorisation

1. The proposed 240MW Zionsheuveld Solar PV Facility and its associated electrical infrastructure on the Remainder of the Farm Leeuwberg 79 within the Renosterberg Local Municipality in the Northern Cape Province is approved as per the geographic coordinates cited in the table 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 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 ten (10) 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 for the activity to be undertaken.
8. Construction must be completed within ten (10) 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.

Commencement of the activity

12. 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

13. The Facility Layout and Sensitivity Map as attached as Annexure 2 below submitted with the final EIAR dated July 2023 is hereby approved.
14. The Environmental Management Programme (EMPr) for the facility and the generic Environmental Management Programme (EMPr) for the on-site substation (IPP Portion) submitted as part of the final EIAR dated July 2023, are hereby approved, and must be implemented and adhered to.
15. The EMPr must be implemented and strictly enforced during all phases of the project. It shall be seen as a dynamic document and shall be included in all contract documentation for all phases of the development when approved.
16. Changes to the approved EMPr must be submitted in accordance with the EIA Regulations applicable at the time.
17. 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

18. The EMPr must be updated where the findings of the environmental audit reports, contemplated in Condition 25 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.
19. The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.
20. The updated EMPr must be submitted to the Department for approval together with the environmental audit report, as per Regulation 34 of the EIA Regulations, 2014 as amended. 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.
21. In assessing whether to grant approval of an EMPr which has been updated because of an audit, the Department will consider the processes prescribed in Regulation 35 of the EIA Regulations, 2014 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.
22. The holder of the authorisation must 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 the EIA Regulations, 2014, 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

23. The holder of the authorisation must appoint an experienced 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.
 - 23.1. The ECO must be appointed before commencement of any authorised activities.
 - 23.2. Once appointed, the name and contact details of the ECO must be submitted to the *Director: Compliance Monitoring* of the Department.
 - 23.3. The ECO must keep record of all activities on site, problems identified, transgressions noted, and a task schedule of tasks undertaken by the ECO.

- 23.4. 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

24. 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.
25. 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.
26. The frequency of auditing and of submission of the environmental audit reports must be as per the frequency indicated in the EMPr, considering the processes for such auditing as prescribed in Regulation 34 of the EIA Regulations, 2014 as amended.
27. 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.
28. 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.
29. 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

30. 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

31. 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

32. 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

33. Walk down of the approved site prior to construction activities must be undertaken in the relevant season to record all provincially protected species that will be impacted on by the development.
34. A permit must be obtained from the relevant authorities for the removal or disturbance of any TOPs, Red Data listed or provincially protected species/ Species of Conservation Concern (SCC) prior construction.
35. Vegetation clearance must be restricted to the approved development areas.
36. No exotic plants must be used for rehabilitation purposes. Only indigenous plants of the area must be utilised.
37. Should any archaeological sites, artefacts, paleontological fossils, or graves be exposed during construction work, work in the immediate vicinity of the find must be stopped, the South African Heritage Resources Agency (SAHRA) must be informed, and the services of an accredited heritage professional obtained for an assessment of the heritage resources.
38. Hazardous substances must be stored in a bunded and designated area to avoid accidental leakage into the environment.
39. 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. Any solid waste 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).

General

40. A copy of this Environmental Authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-

- 40.1. at the site of the authorised activity,
 - 40.2. to anyone on request; and
 - 40.3. Where the holder of the Environmental Authorisation has a website, on such publicly accessible website.
41. 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: 13/09/2023



Mr Sabelo Malaza

Chief Director: Integrated Environmental Authorisations
Department of Forestry, Fisheries and the Environment

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 16 January 2023, amended application form received 26 July 2023 and the email dated 12 September 2023 confirming that the roads do not form part of dimensions under the area occupied by the solar array.
- b) The information contained in the final EIAr dated July 2023.
- c) The comments received from all interested and affected parties as included in the final EIAr dated July 2023.
- d) Mitigation measures as proposed in the EIAr and the EMPr for the facility and the generic EMPs included in the final EIAr dated July 2023.
- e) The information contained in the specialist studies contained within the appendices of the final EIAr.

2. Key factors considered in making the decision.

All information presented to the Department was considered in the Department's consideration of the application. A summary of the issues which, in the Department's view, were of the most significance is set out below.

- a) The findings of all the specialist studies conducted and their recommended mitigation measures.
- b) The need for the proposed project ties in with the national government policies, plans, and programmes which have relevance to energy planning and production.
- c) The final EIAr dated July 2023 identified all legislations and guidelines that have been considered in the preparation of the EIAr.
- d) The methodology used in assessing the potential impacts identified in the final EIAr dated July 2023 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 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 final EIAr dated July 2023 and sufficient assessment of the key identified issues and impacts have been completed.

