

**THE DEVELOPMENT OF A 3.15 MW SOLAR PHOTOVOLTAIC FACILITY ON THE REMAINDER
OF FARM BROODKRAAL NO. 154, PIKETBERG (SWARTLAND)**

EA DEA&DP Ref: 16/3/3/1/F5/25/2028/23

FORMAL ECO AUDIT REPORT

Prepared for:

The Director

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ABBREVIATIONS

BGCMA	Breede-Gouritz Catchment Management Agency
DEA&DP	Department of Environmental Affairs and Development Planning
DWS.....	Department of Water Affairs and Sanitation
EA	Environmental Authorization
EAP	Environmental Assessment Practitioner
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMPr.....	Environmental Management Programme
ER	Employer's representative
DEO	Designated Environmental Officer
GNEC	Guillaume Nel Environmental Consulting
I&AP	Interested and Affected Parties

INTRODUCTION

This Formal ECO Report is distributed to the project team after the site audit was undertaken. The contractor has 3 working days to provide a rectification report with photographic evidence of how the findings in this report were rectified.

The ECO Report is compiled in order to ensure continuous improvement with regards to environmental related matters. The aim is furthermore, to increase the contractor's compliance rating in terms of the environmental approvals, and to advise on environmental matters which might occur during construction activities. This ECO report incorporates the monthly environmental findings and furthermore may include corrective measures/actions which were taken by the contractor.

PROJECT DESCRIPTION

The development entails the development of a solar photovoltaic facility on the remainder of Farm Broodkraal No. 154, Piketberg (Swartland) that will generate approximately 3.15 MW of electricity for the servicing of the existing Broodkraal farm packhouses and coolers for the increase and optimisation of agricultural productivity.

The following infrastructure is proposed:

- Approximately 6912 modules;
- The portrait orientation arrangement of approximately 72 tables in three (3) rows; and
- An approximate clearance height of 600mm.

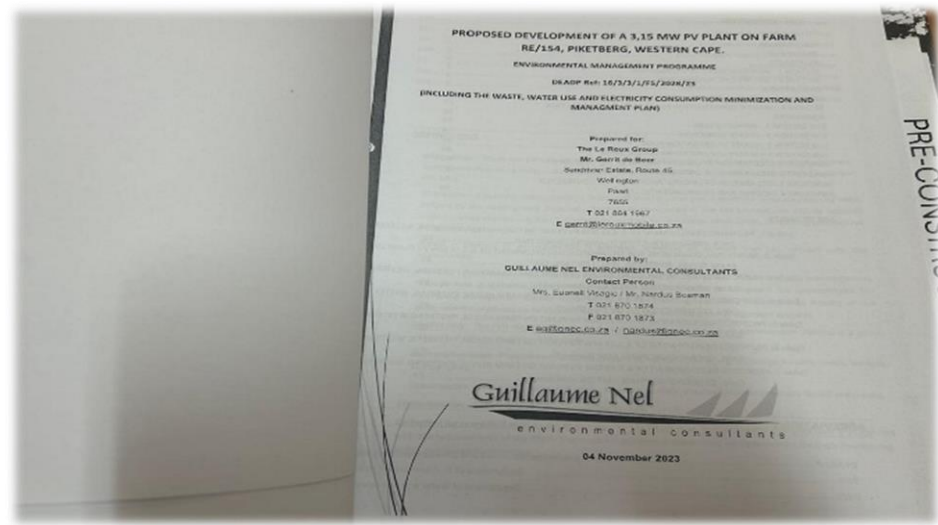
The development footprint will be approximately 3.6ha in extent.

The proposed development will connect to an existing 11kV powerline and substation for the conveyance of the generated electricity. Existing access to the site will be obtained via the R399 near Wittewater.

FINDINGS IN TERMS OF THE APPROVED EMPR DURING THE SITE VISIT ON THE 26TH OF SEPTEMBER 2024

Requirement Please refer to approved EMPr for detailed requirements	ECO comments and/or recommendation	Compliance
		Compliant
		Partial-Complaint
		Non-Compliant
		Require Confirmation
		Premature
		Not Auditable
PRE-CONSTRUCTION (PLANNING) PHASE EMPr		
Visual Impact Assessment mitigation	1. Sufficient distance from the existing Broodkraal farm workers village for the buffer has been implemented. 2. New screen planting has been integrated into the design, and the planting will almost be done. 3. The utility components have not been painted muted colours, and the contractor should take note of this condition 4. Existing roadways have been utilized around the solar plant. 5. The roadways are small gravel roads, no construction of roads are being done on site. 6. The contractor should advise on the storm water management. 7. No galvanized steel palisade fencing was used on site, the site is fenced but not with palisade fencing.	Premature

	8. No lighting has been placed on site so far.	
Visual Impact	The No Go Area should please be demarcated as soon as possible.  All construction is limited within the designated construction footprint.	Partial Compliant
Project contract and programme	The EMPr forms part of the contract document, by means of a signed letter signed by the contractor and developer. A copy of the EMPr is available at the site office.	Compliant

		
Site demarcation and development	The No Go area should please be demarcated as stated above. The rest of the construction site has been fenced already, and construction is only in the fenced area, and not close to the no go area. The declaration of understanding should please be signed at the back of the EMPr in the file on site.	Partial Compliant
Emergencies, non-compliance and communication	The contractor must provide method statements on the protocols to be followed, and contingencies to be put in place for the following, before construction may begin: • Emergency spills procedures for the contamination of soils from spills and fire • Handling & storage of oils and chemicals • Cement and concrete batching, which includes the storage, washing & disposal of cement, packaging, tools and plant.	Require confirmation

	• Diesel tanks and refuelling procedures • Crew camps and construction lay down areas • Workshop maintenance and cleaning of plant • Dust • Fire	
Fauna	No fauna was seen on site.	Compliant
CONSTRUCTION PHASE EMPr		
Stockpiles	No stockpiles were noted on site. The topsoil is still intact on site.	Compliant
Oil and Chemicals	No dangerous chemicals are kept on site, no bulk fuel is proposed on site. The contractor should please supply the site with a spill kit	Compliant
Cement	Batching was done during the audit, an impermeable area has been created for the batching, and no remains were noted on site.	Compliant

		
Dangerous and toxic materials	No hazardous chemicals were observed on site.	Not auditable
Bulk storage of fuels and oils	No bulk fuel storage tanks were observed on site during the audit inspection.	Not auditable
Use of dangerous and toxic materials	Firefighting equipment and an oil spill kit should please be placed on site. An incident reporting system should be setup on site and placed in the file on site. Certain staff members had received fire training according to the contractor on site. No spills had been recorded or reported on site.	Require confirmation
Eating areas and camp followers	An eating area was provided on site, the area was neat and tidy with waste bins. No litter was seen in the site camp or eating area.	Compliant

Toilets	Sufficient toilets were observed on site for the amount of workers on site.	Compliant
Waste management	Good waste management was observed during the audit. A bin was made available on site.	Compliant
Dust	A dust control method statement should be submitted to the ECO. No excessive dust was observed during the audit, as it was a calm day. Dust suppression is done regularly on the access roads.	Compliant
Workshop equipment, maintenance and storage	Ensure that senior and relevant staff are trained in cleaning up oil spillages using oil spill kits and provide evidence of training to the ECO and Auditor. No spillages were observed in the site camp/workshop area during the audit. An oil spill kit should be placed on site.	Compliant
Noise	No excessive noise was heard during the audit, and construction is only active during working hours.	Compliant
Crew camps	All the staff is accommodated on site, the staff have lived in the houses before the project. The site camp is located on a farm.	Compliant
Fires	A method statement for Fires have not been received to date and firefighting equipment was seen on site.	Partial Compliant

Erosion and sedimentation	No major erosion runnels or sedimentation was observed at any of the working areas.	Compliant
Fauna	No fauna was observed during the audit, and a fauna awareness talk should please be done on site.	Compliant
Flora	Rehabilitation will be done as soon as construction is done. The screening will be done in the coming months.	Premature
Heritage	No archaeological artefacts or human remains have been discovered during the project timeline	Compliant
No Go Areas	The no go area has not been demarcated to date, but the site camp is located on the furthest side from the no go area.	Partial Compliant
Access Routes	All access roads to the construction site are existing roads.	Compliant
Crime, safety and security	Emergency numbers and procedures should be displayed on site. The staff on site lives in nearby houses on the farm. It is established houses. As far as the ECO is aware the nearest emergency service provider has not been contacted by the contractor as yet to find out the capacity and magnitude of accidents it can handle.	Require confirmation
Visual Impact	Litter is removed regularly on site, and all disposal slips are sent to the ECO and kept on file.	Premature

	No rubble was seen on site. The screen planting to still commence between the site and the houses.	
Hydrology <i>It is highly recommended that the ground cover under the solar panels be vegetated with indigenous terrestrial graminoid species, maintained and not be left as gravel or bare ground to assist with stormwater management and prevent erosion at the base of the panels</i> <i>Alternatively, a buffer strip must be placed after the most downgradient row of panels. The buffer strip length must be sufficient to return the runoff characteristics with the panels to those of runoff experienced before the gravel and panels were installed</i>	No works in watercourses are proposed in the project. No wastewater runs freely on the site. Freshwater Verification No excessive dust has been seen during the audit, the contractor should please comment on if sediment control devices will be installed on the downgradient. According to the ECO sediment control devices are not applicable as vegetation is seen next to the site on the downgradient, and construction is happening in the summer, so sediment should not be an issue. <i>The contractor to comment on what will be done underneath the solar panels.</i>	Require confirmation
Soil	No soil has been stripped on site. The topsoil is still intact.	Compliant
OPERATIONAL PHASE EMPr		

Waste management	No waste will be generated by the use of the road and structures during the operational phase. All litter and rubble will be removed before the contractor leaves the site.	Not Auditable
Stormwater Management	As a mitigation measure, it is proposed to maintain the narrow corridor of existing vegetation adjacent to the tributary to the west of the site to act as a buffer against potential runoff. For all maintenance undertaken reference must be made to recommendations in the engineer's reports and or the approved storm water management plan. All maintenance activities must be monitored to ensure that no environmental damage occurs. All damage must be mitigated immediately.	Premature
Dust	Surface dust should be minimized during the operational phase of the development in order to prevent the dust from being blown to adjacent houses.	Premature
Atmospheric pollution	All forms of dust/air pollution must be managed in terms of the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965), this includes the control of noxious and offensive gases, smoke, dust and vehicular emissions Under no circumstances may heavy smoke be released into the air.	Premature
Landscape management	All alien invasive plant species must be monitored and removed for disposal at a registered organic waste transfer facility.	Premature

Visual Statement Mitigation Measures	a) Maintain the dam and riparian corridor as 'no-go areas' for any further development, and ensure that any activities or events held within these areas 'tread-lightly', b) planning and management to respond positively to visual/heritage considerations and design indicators, towards an appropriate fit and seamless integration into the landscape context. c) architectural measures (form / scale / massing / materials / textures) to ensure visually recessive structures and to combat the cumulative effect of the aggregation of buildings and services d) landscape measures (screen planting / village green open space / view corridors) to anchor and settle the new buildings	Premature
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FINDINGS IN TERMS OF THE GRANTED ENVIRONMENTAL AUTHORISATION DURING THE SITE VISIT ON THE 26

EA Condition No.	Description of each Condition	Comments on Compliance
		Compliant
		Partial-Complaint
		Non-Compliant
		Require Confirmation
		Premature
		Not Auditable
1	The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the Preferred Alternative described in Section B above and in the BAR dated November 2023 on the site as described in Section C above.	Note
2	The holder must commence with, and conclude, the listed activities within the stipulated validity period, which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority. This Environmental Authorisation is granted for – A period of five (5) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and	Compliant The holder commenced with construction at the beginning of August, and the EA was granted on the 15th of April, thus within 5 years time. The construction will continue until next year.

	A period of ten (10) years, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities for the construction phase, must be concluded.	
3	The holder shall be responsible for ensuring compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee, or any person rendering a service to the holder.	Note
4	Any changes to, or deviations from the scope of the alternative described in section B above must be accepted or approved, in writing, by the Competent Authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the Competent Authority may request information in order to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.	Compliant No changes or deviations from the scope was observed in the audit.
5	A minimum of seven (7) calendar days' notice, in writing, must be given to the Competent Authority before commencement of the development activity. The notice must make clear reference to the site details and EIA Reference number given above. The notice must also include proof of compliance with the following conditions described herein: Conditions: 6, 7, 10 and 14.	Compliant A notification of commencement was sent to the relevant authority on the 24 th of July 2024, and made reference to the mentioned conditions.

6	The holder of the authorisation must in writing, within 14 (fourteen) calendar days of the date of this decision – 6.1.3 the date of the decision; and 6.1 notify all registered interested and affected parties (“I&APs”) of – 6.1.1 the outcome of the application; 6.1.2 the reasons for the decision; 6.1.4 the date of issue of the decision; 6.2 draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended); 6.3 draw the attention of all registered I&APs to the manner in which they may access the decision; and 6.4 provide the registered I&APs with: 6.4.1 the name of the holder (entity) of this Environmental Authorisation, 6.4.2 name of the responsible person for this Environmental Authorisation,	Compliant The EA was issued on the 15th of April 2024, and the I&APs has been notified of the EA on the 17th of April, so within 2 days of the EA being issued.
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	6.4.3 postal address of the holder, 6.4.4 telephonic and fax details of the holder, 6.4.5 e-mail address, if any; 6.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).	
7	The listed activities, including site preparation, must not commence within twenty (20) calendar days from the date the holder notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided i.e. the listed activities, including site preparation, must not commence until the appeal is decided.	Compliant The I&APs were notified on the 17th of April 2024, and the letter of commencement for site preparation was sent on the 24th of July 2024.
8	The Environmental Management Programme (“EMPr”) (compiled by Guillaume Nel Environmental Consultants and dated 04 November 2023) submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.	Compliant The EMPr is implemented on site, and is kept on file.
9	The EMPr must be included in all relevant contract documentation for the applicable phases of implementation.	Partial Compliant

		The EMPr has not been included in contract documentation as there are no real contract documentation. The contractor and developer should please supply the ECO with a letter stating that the EMPr will be included and implemented in all future documentation on site.
10	The holder must appoint a suitably experienced environmental control officer ("ECO"), or site agent where appropriate, before the commencement of any land clearing or development activities to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.	Compliant An ECO has been appointed on site, Nica Kotze from GNEC acts as the ECO on site.
11	A copy of the Environmental Authorisation, EMPr, Environmental Audit Reports and compliance monitoring reports must be kept at the site of the authorised activities during the development activities thereafter it must be kept at the office of the holder and must be made available to any authorised person on request.	Compliant A copy of the EA, and EMPr has been placed on file in the site file. Thank you for that.
12	Access to the site referred to in Section C above must be granted, and the environmental reports mentioned above must be produced, to any authorised official representing the Competent	Compliant

	Authority who requests to see it for the purposes of assessing and/or monitoring compliance with the conditions contained herein.	Access to the site referred to in Section C has been granted.
13	In terms of Regulation 34 of the NEMA EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Report must be prepared by an independent person with the relevant environmental auditing expertise and must contain all the information required in Appendix 7 of the NEMA EIA Regulations, 2014 (as amended). The holder must undertake an environmental audit within three (3) months of the commencement of the listed activities and submit an Environmental Audit Report to the Competent Authority one (1) month after the completion of the environmental audit. An Environmental Audit Report must be submitted to the Competent Authority every two (2) years for the duration of the development/construction phase. A final Environmental Audit Report must be submitted to the Competent Authority within three (3) months of the completion of the construction / development phase. The holder must, within seven (7) days of the submission of the Environmental Audit Reports to the Competent Authority, notify all potential and registered I&APs of the submission and make the Environmental Audit Report available to any I&APs upon request.	Note The ECO requested quotations for the External Audit to be done, the audit should please be done in October

14	The riparian habitat of the delineated watercourse (i.e. unnamed tributary of the Berg River) located along the western boundary of the proposed site must be demarcated as a “no-go” area prior to the commencement of development activities and must remain visible for the duration of the construction phase of the proposed development.	Non Compliant The riparian habitat of the delineated watercourse has not been demarcated to date, and should please be done.
15	In accordance with the recommendation provided in the Visual Impact Assessment (compiled by compiled by David Gibbs and dated 26 June 2023), and as included in the EMPr, tall vegetation must be planted along the boundary of the site during the construction phase to form a visual screen. The establishment and maintenance of the visual screen must be reported on as part of the environmental audit reports to be submitted to the competent authority.	In Progress The developer would like to plant Syzygium hedging, the hedges are indigenous and would supply sufficient visual screening. The contractor should please plant the hedging as soon as possible.
16	An integrated waste management approach must be implemented that is based on waste minimisation and must incorporate avoidance, reduction, recycling, treat, reuse and disposal where appropriate.	Noted No waste was seen on site.
17	Surface, storm, or groundwater must not be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.	Compliant

		No surface or groundwater has been polluted on site
18	Dust suppression measures must be used to mitigate dust during the construction phase. No potable water must be used to mitigate dust nuisance. Alternative dust suppression methods (such as shade netting screens and/ or straw stabilisation, etc.) must be implemented instead.	Compliant No dust was seen on site during the audit, the contractor is reminded to please supply dust suppression on site.
19	Employment opportunities must be afforded to the local community (as far as possible) during all phases of the proposed development.	Compliant All the workers on site are living on the Farm.

PROGRESS

The solar panel footings have been installed and the holes are on going.



MAJOR AREAS OF CONCERN

No major areas of concern were found on site other than the general findings above.

Compiled by:



Nica Kotze

for GNEC