



CONSTRUCTION AUDIT REPORT #1



OCS

ENVIRONMENTAL AND SOCIAL ADVISORY SERVICES



**AMSTILITE(RF) PROPRIETARY LIMITED
GOLDEN VALLEY WIND ENERGY FACILITY**

**BLUE CRANE ROUTE LOCAL MUNICIPALITY, COOKHOUSE EASTERN
CAPE PROVINCE OF SOUTH AFRICA**

DEA Reference: 12/12/20/1717/AM8

CONSTRUCTION AUDIT REPORT

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1 INTRODUCTION

1.1 INTRODUCTION

CES has been approached by BioTherm Energy (the Client) to provide the environmental auditing of the Environmental Authorisations (EAs) as well as the auditing and updating of the Construction Environmental Management Programmes (CEMPs) in accordance with Regulation 54A (3) of the National Environmental Management Act (NEMA) (Act No. 107 of 1998) Environmental Impact Assessment (EIA) Regulations (2014 and subsequent 2017 amendments).

In terms of Regulation 54A Subsection (2) and (3), the auditing requirements of regulation 34 of the EIA Regulations are applicable to Environmental Management Programmes approved in terms of the Mineral and Petroleum Resources Development Act 2002 and environmental authorisations issued in terms of the Environmental Conservation Act 1989 and the previous NEMA regulations. The deadline for submission of first audit report is 7 December 2019.

The Minister of Environment, Forestry and Fisheries published a notice of her intention, in terms of section 44 of the National Environmental Management Act, 1998 to amend Regulation 54A of the EIA Regulations by the substitution, in subregulations (2) and (3), of the words *“no later than 7 December 2019 and at least every 5 years thereafter for the period during which such environmental authorisation is still in effect”* of the words *“by a date to be published by Notice in the Government Gazette.”*

1.2 PROJECT DESCRIPTION

The proposed Golden Valley Project 1 is to be constructed on 8,100 hectares (ha) (total area of the development and not the actual physical footprint of the turbines) encompassing eight farms located in the Blue Crane Route Municipality (BCRM) in the Eastern Cape Province of South Africa (Figure 1-1). The details of the eight farm portions involved in Project 1 are as follows:

1. Farm 169 Portion 2 (Olive Woods)
2. Farm 166/RE (Olive Fonteyn)
3. Farm 167/RE (Klein Riet Fontein)
4. Farm 181 Portion 1 (Cregus Kraal)
5. Farm 283
6. Farm 284
7. Farm 159/RE (Mullers Kraal)
8. Portion 1 of Farm Boschfonteyn 180



Forty-eight (48) turbines will be constructed, with maximum output capacity of 2.55 MW each. Ancillary supporting infrastructure will include:

- Access roads approximately 6 m wide;
- Hardstands;
- Laydown areas;
- Permanent masts;
- Maintenance buildings;
- Buried cables (with some sections of overhead) of 33 kV connecting the turbines and the project substation;
- A project substation; and
- A 132 kV overhead line connecting the project substation with Kopleegte substation.

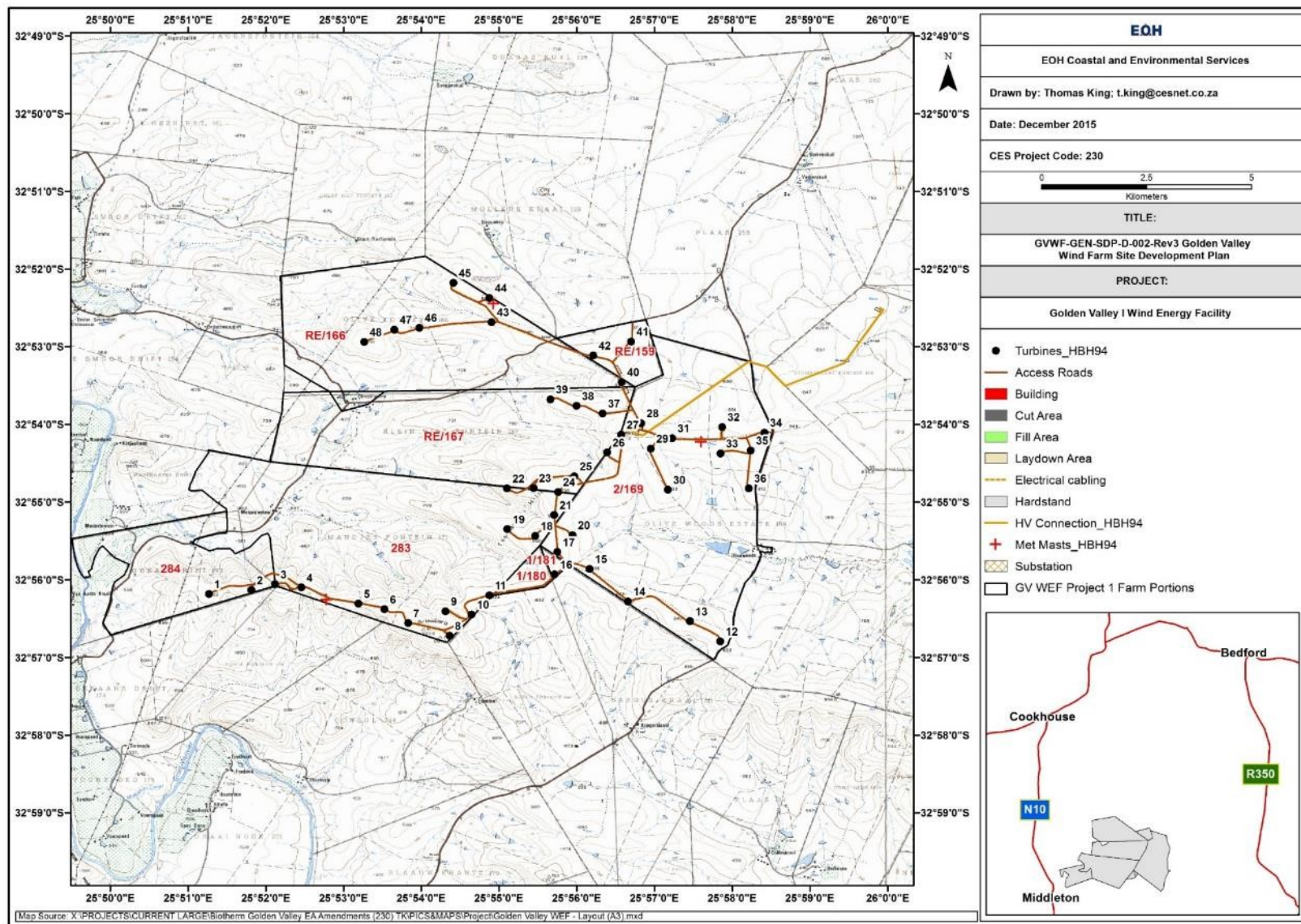


Figure 1-1: Proposed project Infrastructure layout.



1.3 AUDIT APPROACH

Participants:

Dr Alan Carter (Project Leader & Quality Assurance)

Alan has over 25 years of experience in both environmental science and financial accounting disciplines including with international accounting firms in South Africa and the USA. He holds a PhD in Plant Sciences and a BCom Honours degree in financial accounting. Alan is a member of a number of professional bodies including American Institute of Certified Public Accountants (AICPA) and Institute of Waste Management South Africa (IWMSA). He is also certified as an Environmental Assessment Practitioner in South Africa (EAPSA) and as an ISO14001 EMS auditor with the American National Standards Institute. Areas of specialization include: impact assessment, coastal management, waste management, climate change and emissions inventories, aquaculture and environmental accounting and auditing. Alan is a registered scientist with SACNASP.

Alan's experience in renewable energy includes having managed the EIA process for over 20 wind farms and solar PV facilities throughout South Africa. He has also acted as the designated Environmental Control Officer (ECO) on numerous infrastructure construction projects including wind farms and solar facilities. In addition to his eight years of experience as a financial auditor, Alan has also conducted numerous verification audits in terms of the ISO14001 and IFC standards for a wide range of industries.

Ms Caroline Evans (Project Manager & Internal Reviewer)

Ms Caroline Evans is a Senior Environmental Consultant with 6 years' experience. She is based in the Grahamstown branch and she holds a BSc degree in Zoology and Environmental Science (with distinction) as well as a BSc Honours degree in Environmental Science (with distinction), both from Rhodes University. Caroline has completed accredited courses in environmental impact assessments and wetland assessments.

Caroline's primary focuses include Project Management, the general Environmental Impact Assessment Process, Visual Impact Assessments and Wetland Impact Assessments. Examples of fields in which Caroline was the project manager and lead report writer include Wind Energy Facilities and the associated infrastructure (including powerlines), Solar PV, Waste Water Treatment Works, Housing Developments and Agricultural Developments. Her experience with wind energy facilities and associated infrastructure includes the project management and report writing for the Umsobomvu WEF, Dassiesridge WEF, Scarlet Ibis WEF, Albany WEF, Waaihoek WEF and the Great Kei WEF.

Caroline is well versed in South African policy and legislation relating to development, particularly in the Eastern Cape Province. In addition, Caroline's project management experience has helped her gain knowledge and experience in the technical and financial management and coordination of large specialist teams, competent authority and stakeholder engagement, and client liaison.



Mr Justin Green (Site Auditor & Report Writing)

Justin has a BSc. degree in Zoology and Entomology as well as a Post Graduate Diploma in Enterprise Management from Rhodes University. Justin has been an Environmental Consultant with CES for 7 years and has been involved in extensive work in Renewable Energy Projects and mining based projects. Justin has played an integral part in Basic Assessments and Environmental Impact Assessments. His work experience has been completed in South Africa, Lesotho, Mozambique, Zambia, Cameroon, Tanzania, Malawi, Madagascar and the DRC.

He is a part of the Geographical Information Systems (GIS) team for the past 7 years with his primary experience through ArcGIS 10 and Quantum GIS. He has been involved in producing mapping data for a multitude of international projects all up to African Bank, IFC and World Bank standards.

Justin has also made a considerable difference using OruxMaps for the purpose of specialist fieldwork and mapping purposes. His experience lies in the training and managing of field teams in the use of this technology to accurately measure and locate households, farmlands and areas of special interest that are then incorporated into the GIS database. Tablet based questionnaires are also used by these field teams to conduct surveys to collect information on project affected persons that are capable of linking to the spatial data collect. All survey data can then efficiently and accurately be captured in a Microsoft Access database for evaluation.

1.4 AUDIT DOCUMENTATION

The following documentation was made available to the auditor as per the requirements of the EA and CEMPr:

1.4.1 Registers & Forms:

- Final Layout Plan;
- Induction Register;
- Complaints register;
- Incident reporting register; and
- Land owner agreement forms.

1.4.2 Specialist investigation reports:

- Geotechnical investigation reports (foundations);
- Botanical Groundtruthing report;
- Heritage Investigation reports; and
- Search and Rescue reports.

1.4.3 Permits:

- Environmental Authorisation;
- Water Use License Authorisation;
- Heritage permit;
- Water Allocation Letter;



- Water Abstraction Approval Letter;
- Waste Disposal permits; and
- DAFF permits for removal of SSC.

1.4.4 Management Plans:

- Access Roads and Hardstands
- Alien Vegetation Management Plan
- Dust and Noise Pollution PLAN
- Integrated Water and Waste Management Plan
- Storm Water Management Plan
- Waste Management Plan
- Waste Water Management Plan
- Water Supply and Usage Agreements
- General Authorisation

1.4.5 Method Statements:

- Excavations and Backfilling MS
- Fauna and Flora Protection MS
- Hazardous Substance Storage MS
- Rehabilitation and Re-vegetation Plan, and MS
- Site Clearing MS
- ~~Storm Water Management MS~~
- Survey and Setting-out MS

1.4.6 Documentation required during Operational Phase:

- Avifauna specific EMPr;
- Bird Monitoring Programme; and
- Possible installation of ultrasound broadcasting emitters.

1.5 REPORT OUTCOME

The report must comment on compliance with:

- The EMPr;
- Environmental Authorisations;
- General Authorisations; and
- All permits authorised for the construction of the Windfarm infrastructure layout.

1.6 AUDIT PROGRAMME

The following table reflects the dates of submission for the site audits conducted by CES:

Report name	Proposed date of site audit	Actual date of site audit	Date of report submission
Construction Audit #1	25 – 26 November 2019	25 – 26 November 2019	13 December 2019



2 COMPLIANCE WITH EA AND EMPr

2.1 AUDIT CHECKLIST

The following audit checklist was generated from the EA and EMPr. Photos of the site have been included.

Key to the checklist below:

STATUS	DESCRIPTION
YES	Means the activity is being/was carried out in a manner that is compliant with the EMPr specifications.
NO	Means the methods used during a specific activity are not compliant with the EMPr and/or Environmental Authorisation (EA) specifications. The non-compliance is described as a major non-compliance as the transgression is severe.
PARTIAL	Means the methods used during a specific activity are partially compliant with the EMPr and/or Environmental Authorisation (EA) specifications. The partial compliance is described as a minor non-compliance as the transgression may have a low severity or temporary activity. NOTE: failure to rectify a minor non-compliance can lead to a major non-compliance.
N/A	Means “Not Applicable” and may refer to the redundancy of the compliance item or the item may not be relevant at the specific stage of the development. The item may only be relevant at a later stage.

2.2 AUDIT EVIDENCE

- **Inspection** of relevant records or documents - consists of examining records or documents, whether internal or external, in paper form, electronic form, or other media.
- **Inspection** of assets - consists of physical examination of the assets or mitigation methods.
- **Observation** – consists of looking at a process or procedure being performed by others.
- **Inquiry** – consists of seeking information of knowledgeable persons inside or outside the entity.
- **Confirmed by Enquiry** - which is a specific type of inquiry, is the process of obtaining a representation of information or of an existing condition directly from a third party.

NB:

Activity completed = The activity has been completed and carried out in a satisfactory manner

Compliance = YES

Partial/Non-compliance = NO minor/major

Not Applicable = N/A



2.3 ENVIRONMENTAL AUTHORISATION CHECKLIST

EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
SCOPE OF AUTHORISATION							
1	The 120 MW Amstilite (RF) Proprietary Limited Golden Valley Wind Energy Project 1 and its associated infrastructure on the Farm 169 Portion 2 (Olive Woods); Farm 166/RE (Olive Fonteyn); Farm 167/RE (Klein Riet Fontein); Farm 181 Portion 1(Cregus Kraal); Farm 283; Farm 284; Farm159/RE (Mullers Kraal); Portion 1 of Farm Boschfonteyn 180 in the Blue Crane Route Local Municipality, Eastern Cape Province as described above is hereby approved.	YES			Confirmed by Enquiry	Compliant	
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.	YES			Confirmed by Enquiry	Compliant	
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.	YES			Confirmed by Enquiry	Compliant	
4	The activities authorised may only be carried out at the property as described above.	YES			Confirmed by Enquiry	There has been no change to the authorised properties	
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 affected. 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	YES			Inspection of relevant records or documents	Minor adjustments to the project layout were reported for a turbine laydown area, as well as minor road deviations. These were made within the buffer zone and were reported in in the pre-construction audit report.	
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			N/A	Confirmed by Enquiry		
7	This activity must commence within a period of three (03) 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	YES			Confirmed by Enquiry	Compliant	
8	Construction must be completed within 5 years of the commencement of the activity on site			N/A	Confirmed by Enquiry	Construction is still taking place, however, will be completed prior to the 5-year deadline	
9	Commencement with one activity listed in terms of this environmental authorisation constitutes commencement of all authorised activities	YES			Confirmed by Enquiry		
NOTIFICATION OF AUTHORIZATION 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.	YES			Inspection of relevant records or documents	Notifications were submitted and are available on record upon requests	
11	The notification referred to must						
	11.1. Specify the date on which the authorisation was issued;	YES			Inspection of relevant records or documents	The notification letter contained all the information required by the EA	
	11.2. Inform the interested and affected party of the appeal procedure provided for in the National Appeal Regulations, 2014;	YES					
	11.3. Advise the interested and affected party that a copy of the authorisation will be furnished on request	YES					
11.4. Give the reasons of the competent authority for the decision.	YES						
12	The holder of the authorisation must publish a notice -						
	12.1. Informing interested and affected parties of the decision; and	YES			Inspection of relevant records or documents	The notice was sent to all IAP's and the required information was supplied in the notice	
	12.2. Informing interested and affected parties where the decision can be accessed	YES					
	12.3. Drawing the attention of interested and affected parties to the fact that an appeal may be lodged against this decision in terms of the National Appeal Regulations, 2014	YES					
COMMENCEMENT OF THE ACTIVITY							



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
13	The authorised activity shall not commence until the period for the submission of appeals has lapsed as per the National Appeal Regulations, 2014. In terms of section 43(7), an appeal under section 43 of the National Environmental Management Act, 1998 will suspend the environmental authorisation or any provision or condition attached thereto. In the instance where an appeal is lodged you may not commence with the activity until such time that the appeal has been finalised.	YES			Confirmed by Enquiry	The project officially commenced after the allocated appeal period had been completed. The project start date is recorded as the 15th August 2018	
MANAGEMENT OF THE ACTIVITY							
14	The development layout plan title: GCWF-GEN-SDP-D-002-Rev3 Golden Valley Wind Farm Site Development Plan drawn by Thomas King and dated December 2015 is hereby approved			N/A	Confirmed by Enquiry	N/A	
15	The Environmental Management Programme (EMPr) (Reference number 12/12120/1717/AMS and dated December 2015) submitted as part of the application for EA is hereby approved. This EMPr must be implemented and adhered to.	YES			Confirmed by Enquiry	The activities and requirements of the EMPr are currently being enforced by BioTherm as well as all contractors currently working on site.	
16	The EMPr must be implemented and strictly enforced during all phases of the project. It must be seen as a dynamic document and must be included in all contract documentation for all phases of the development when approved	YES			Confirmed by Enquiry		
17	Should the holder of this environmental authorisation propose any changes to the EMPr, the holder of this environmental authorisation must undertake the required actions as prescribed by legislation at the time and comply with all relevant legal requirements administered by any relevant and competent authority at that time			N/A	Confirmed by Enquiry	There are currently no changes that have been made to the updated EMPr (2015)	
18	The Department reserves the right to amend the approved EMPr should any impacts that were not anticipated or covered in the EIA be discovered.			N/A	Confirmed by Enquiry	There have been no amendments to the latest EMPr from the Department, as no new impacts have been recorded.	
19	A shapefile of the development layout/footprint must be submitted to this Department within two months from the date of this decision. The shapefile must be created using the Hartebeesthoek 94 Datum and the data should be in Decimal Degree Format using the WGS 84 Spheroid. The shapefile must include at a minimum the following extensions i.e. .shp; .shx; .dbf; .prj; and, .xml (Metadata file). If specific symbology was assigned to the file, then the .avl and/or the .lyr file must also be included. Data must be mapped at a scale of 1: 10 000 or specify if an alternative scale was used. The metadata must include a description of the base data used for digitizing. The shapefile must be submitted in a zip file using the EIA application reference number as the title	YES			Confirmed by Enquiry	Compliant	
FREQUENCY AND PROCESS OF UPDATING EMPr							
20	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.			N/A	Inspection of relevant records or documents	There are no audit reports indicating insufficient mitigation of the environmental impacts	
21	The updated EMPr must contain recommendations to rectify the shortcomings identified in the environmental audit report.			N/A	Inspection of relevant records or documents	There are not any shortcomings identified in the most recent Environmental Audit Report	
22	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			N/A	Inspection of relevant records or documents	The EMPr has not been updated since its authorisation. No proof of audit reports findings that would trigger an EMPr update.	
23	In assessing whether to grant approval of an EMPr which has been updated as a result of an audit, the Department will consider the processes prescribed in Regulation 35 of GN R.982. Prior to approving an amended EMPr, the Department may request such amendments to the EMPr as it deems appropriate to ensure that the EMPr sufficiently provides for avoidance, management and mitigation of environmental impacts associated with the undertaking of the activity.			N/A	Inspection of relevant records or documents	The EMPr has not been updated since its authorisation. No proof of audit reports findings that would trigger an EMPr update.	
24	The holder of the authorisation may apply for an amendment of an EMPr, if such amendment is required before an audit is required. The holder must notify the Department of its intention to amend the EMPr at least 60 days prior to submitting such amendments to the EMPr to the Department for approval. In assessing whether to grant such approval or not, the Department will consider the processes and requirements prescribed in Regulation 37 of GN R. 982.			N/A	Inspection of relevant records or documents	There have been no amendments to EMPr to date.	
MONITORING							
25	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	YES			Confirmed by Enquiry	Mr Dakalo Nemalegeni of Nsovo Environmental Consulting has been appointed as the project ECO.	



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
	mitigation/rehabilitation measures and recommendations referred to in this environmental authorisation are implemented and to ensure compliance with the provisions of the approved EMPr.						
	25.1. The ECO must be appointed before commencement of any authorised activities.	YES			Confirmed by Enquiry	The date of the ECO's appointment: 26/07/2019 The date of the project commencement: 15/08/2019	
	25.2. Once appointed, the name and contact details of the ECO must be submitted to the Director: Compliance Monitoring of the Department.	YES			Confirmed by Enquiry	The appointment of the ECO and his details were sent to DEA on 26/07/2019.	
	25.3 The ECO must keep record of all activities on site, problems identified, transgressions noted and a task schedule of tasks undertaken by the ECO.	YES			Inspection of relevant records or documents	Monthly ECO reports have been compiled, as well as additional incident reports. The ECO is keeping track of all activities taking place on site.	
	25.4. 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.	YES			Confirmed by Enquiry	Mr Dakalo Nemalegeni of Nsovo Environmental Consulting is still employed as the project ECO. The project is still during the construction phase and rehabilitation has not yet begun.	
RECORDING AND REPORTING TO THE DEPARTMENT							
26	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.	YES			Confirmed by Enquiry	Compliant. The required documentation has been submitted to the Department within the required timeframes.	
27	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.	YES			Confirmed by Enquiry	The ECO officer was appointed prior to the construction phase and has continued to submit monthly reports since the beginning of the construction phase. All reports have been submitted as requested.	
28	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.	YES			Confirmed by Enquiry	Compliant	
29	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.			N/A	N/A	The construction has not yet been completed	
30	The environmental audit reports must be compiled in accordance with Appendix 7 of the EIA Regulations, 2014 and must indicate the date of the audit, the name of the auditor and the outcome of the audit in terms of compliance with the environmental authorisation conditions as well as the requirements of the approved EMPr.	YES			Inspection of relevant records or documents	Compliant	
31	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.	YES			Inspection of relevant records or documents	Evidence of ECO recordings were kept on site and made available for inspection	
NOTIFICATION TO THE AUTHORITIES							
32	A written notification of commencement must be given to the Department no later than fourteen (14) days prior to the commencement of the activity. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence, as well as a reference number.	YES			Confirmed by Enquiry		
OPERATION OF THE ACTIVITY							
33	A written notification of operation must be given to the Department no later than fourteen (14) days prior to the commencement of the activity operational phase.			N/A	N/A	The construction has not yet been completed	
SITE CLOSURE AND DECOMMISSIONING							
34	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.			N/A	Confirmed by Enquiry		
SPECIFIC CONDITIONS							
AVI-FAUNA							



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
35	A bird monitoring programme must be implemented to document the effect of the operation of the wind energy facility on avifauna and bats. This should commence prior to construction (to provide a benchmark), and continue during operation of the wind energy facility	YES			Inspection of relevant records or documents	The bird monitoring programme began prior to the construction phase. It should continue to be implemented during the operational phase of the project.	
36	Turbines must be placed at least 300m apart to avoid bird collisions	YES			Inspection of relevant records or documents	Compliant	
37	Reports regarding bird monitoring must be submitted to Birdlife South Africa, the Endangered Wildlife Trust (EWT) and this Department on a quarterly basis. The report will assist all stakeholders in identifying potential and additional mitigation measures and to establish protocols for bird monitoring programmes for wind energy development in the country.			N/A	N/A	The quarterly report has not yet been compiled; however, it should be submitted to the required Departments as requested.	
38	If recommended by the specialist, ultrasound broadcast must be used to deter bats and birds from flying into wind turbines.			N/A	N/A	The project is still in the construction phase. An avifauna specialist should be consulted to undertake this requirement.	
39	Wind turbines operating times must be restricted during times when bat activity is high, or they must be programmed to switch off under specific conditions prone to bat collision such as during low wind.			N/A	N/A	The project is still in the construction phase.	
40	The applicant must implement, in collaboration with all project proponents for the respective wind farms in Cookhouse and a suitable qualified avifauna specialist, an active long-term bird monitoring programme in order to understand the nature of impacts on avifauna due to wind energy facilities on the site.	YES			Inspection of relevant records or documents	The bird monitoring programme began prior to the construction phase. It should continue to be implemented during the operational phase of the project	
41	If high bird mortalities are recorded, based on the recommendation of the specialist, the applicant must investigate emitting broadcasts for a certain radio frequency to discourage birds from entering high collision areas.			N/A	N/A	The project is still in the construction phase.	
42	The baseline data collected and documented during the survey must be shared with the EWT and Birdlife South Africa for a better understanding of the distribution or breeding behaviour of any of the priority species listed in the EIR dated October 2010 and the amended EIAR dated February 2016	YES			Confirmed by Enquiry	Compliant	
43	Habitat destruction must be kept to an absolute minimum by keeping the lay-down areas as small as possible, reducing the number and size/length of roads and reducing the final extent of the developed area.	YES			Inspection of assets	Compliant	
44	The applicant must ensure that lighting on the turbines is kept to a minimum, and is coloured red and intermittent, rather than permanent and white, to reduce confusion effects for nocturnal migrants. Night-time wind turbine obstruction lighting must consist of medium intensity type B aviation red flashing lights. Minimum intensities of 2 000 candela for night-time red flashing or strobe lights are required			N/A	N/A	The project is still in the construction phase. Once the turbines have been fully constructed, the required lighting instruction should be followed.	
45	The facility must be designed to discourage their use as perching or nesting substrates by birds.	YES			Confirmed by Enquiry	Compliant	
VEGETATION, WETLAND AND WATER RESOURCES							
46	All species of special concern (SSC) must be identified and every effort must be made to rescue them.	YES			Inspection of relevant records or documents	Compliant	
47	The applicant must ensure that a continuous monitoring and removal of alien plant species such as those of <i>Puntia</i> and <i>Agave</i> species is implemented, as well as careful monitoring of the state of the landscape with the Eastern Cape Biodiversity Conservation Plan (ECBCP) land use planning principles.	YES			Inspection of relevant records or documents	Compliant	
48	Vegetation clearing must be kept to an absolute minimum. Mitigation measures must be implemented to reduce the risk of erosion and the invasion of alien species	YES			Inspection of assets	Compliant	
49	Before the clearing of the site, the appropriate permits must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) for the removal of plants listed in the National Forest Act and from the Eastern Cape Department of Economic Development and Environmental Affairs (DEDEA) for the destruction of species protected in terms of the Provincial Nature Conservation Ordinance (PNCO) Schedule 4. Copies of the permits must be submitted to the Department for record keeping	YES			Inspection of relevant records or documents	Compliant/ Copies of permits and letters to the Department are kept on site and were made available for review.	
50	Construction activities must be restricted to demarcated areas to restrict impact on vegetation and animals.	YES			Inspection of assets	Compliant	
51	All areas of disturbed soil must be reclaimed using only indigenous grass and shrubs. Reclamation activities should be undertaken as early as possible on disturbed areas	YES			Confirmed by Enquiry	Compliant. Rehabilitation of disturbed sites has not yet taken place as the project is still within the construction phase.	
52	All electrical collector lines must be as far as practical, buried in a manner that minimizes additional surface disturbance	YES			Inspection of assets	Compliant	



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
53	Topsoil from all excavations and construction activities must be salvaged and reapplied during reclamation.	YES			Inspection of assets	Compliant. Topsoil is cleared of any alien vegetation and seeds prior to reclamation at a site outside of the project boundary.	
54	The applicant is required to inform the relevant provincial department and/or this Department should the removal of protected species, medicinal plants and "data deficient" plant species be required	YES			Inspection of relevant records or documents	Compliant/ Copies of permits and letters to the Department are kept on site and were made available for review.	
55	All hard infrastructures should be located within existing areas of low sensitivity, as far as possible.	YES			Inspection of assets	Compliant	
56	All turbine and infrastructure must be located at least 100m from the edge of any highly sensitive areas.	YES			Inspection of relevant records or documents	Compliant. Review of the layout plan and highly sensitive areas confirms.	
57	No exotic plants may be used for rehabilitation purposes; only indigenous plants of the area may be utilised.			N/A	N/A	This instruction should be followed when the project reaches the operational phase and rehabilitation takes place.	
58	No activities will be allowed to encroach into a water resource without a water use authorisation being in place from the Department of Water and Sanitation	YES			Inspection of relevant records or documents	At present, no construction activities are taking place near water bodies, and thus no authorisations are currently required. The project has however received a General Authorisation for water bodies present won the site	
59	Where infrastructure is to be located close to watercourses, water quality monitoring must be done on a regular basis. The frequency to be agreed with the Department of Water and Sanitation	YES			Confirmed by Enquiry	Compliant	
60	Appropriate erosion mitigation must be implemented to prevent any potential erosion.	YES			Inspection of assets	Areas on the project site have been identified as highly risk erosion sites. The audit revealed that some areas have had subsoil filled in from excavation activities, however the site requires additional rehabilitation activities.	Plate 3-29
VISUAL RESOURCES							
61	The applicant must reduce visual impacts during construction by minimising areas of surface disturbance, controlling erosion, using dust suppression techniques, and restoring exposed solid as closely as possible to their original contour and vegetation.	YES			Confirmed by Enquiry	Water-dust suppression is undertaken on weekly basis	
62	An engineer must be consulted to assist in the planning and placement of light fixtures in order to reduce visual impacts associated with glare and light trespass			N/A	N/A	The recommended instruction should be followed once the turbines have been erected and lights are installed.	
63	Commercial messages and graffiti on turbines must be avoided.			N/A	N/A	The turbines are currently still being erected; however, instructions are to be adhered to.	
64	The lighting and markings of the wind energy facility must comply with the requirements of the Civil Aviation Authority			N/A	N/A	The turbines are currently still being erected; however, instructions are to be adhered to.	
65	Construction activities must be restricted to daylight hours in order to negate or reduce visual impacts associated with lighting.		Partial		Confirmed by Enquiry	Construction activities have occasionally taken place earlier than stipulated in the EA in order to cast concrete for turbine foundations. Both surrounding neighbours, as well as the Department of Labour were informed of the activity and provided approval.	
66	Wind turbines must be painted bright white to provide the maximum daytime conspicuousness			N/A	N/A	Turbines have not yet been constructed. Components currently on site all adhere to the requirements.	Plate 3-7
AIR EMISSIONS							
67	Dust abatement techniques must be used before and during surface clearing, excavation, or blasting activities.	YES			Inspection of assets	Water trucks are present on site and are used to for water-dust suppression during the appropriate stages of construction	
68	Appropriate dust suppression technique must be implemented on all exposed surfaces during periods of high wind. Such measures must include wet suppression, chemical stabilisation use of wind fence covering surfaces with straw chippings and re-vegetation of open areas.	YES			Inspection of assets	Water- dust suppression techniques are employed around the site	



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
ROADS AND GROUNDS TRANSPORTATION							
69	Existing road infrastructure must be used as far as possible for providing access to the proposed turbine positions. Where no road infrastructure exists, new roads should be placed within existing disturbed areas or environmental conditions must be taken into account to ensure the minimum amount of damage is caused to natural habitats.	YES			Inspection of assets	Compliant	
70	Road alignments must be planned in such a way that the minimum of cut and fill operations are required.	YES			Inspection of relevant records or documents	Compliant. Road layout plan was made available for review.	
71	Signs must be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration should be given to limiting construction vehicles travelling on public roadways during the morning and late afternoon commute time.	YES			Inspection of assets	Compliant	Plate 3-18
72	Roads must be designed so that changes to surface water runoff are avoided and erosion is not initiated	YES			Inspection of relevant records or documents	Compliant. Road layout plan was made available for review.	
73	A designated access to the site must be created and clearly marked to ensure safe entry and exit.	YES			Inspection of assets	Compliant	Plate 3-19
74	Signage must be erected at appropriate points warning of turning traffic and the construction site.	YES			Inspection of assets	Compliant	
75	Internal access roads must be located away from drainage bottoms and avoid wetlands, if feasible.	YES			Inspection of relevant records or documents	Compliant. Road layout plan was made available for review.	
76	Internal access roads must be located to minimize stream crossings. All structures crossing steams must be located and constructed so that they do not decrease channel stability or increase water velocity	YES			Inspection of relevant records or documents	Compliant. Road layout plan was made available for review.	
77	Existing drainage must not be altered, especially in sensitive areas.	YES			Inspection of assets	Compliant	
NOISE							
78	The applicant must ensure that all equipment and machinery are well maintained and equipped with silencers.	YES			Confirmed by Enquiry	All machinery on site is regularly serviced and appear to be in good working order.	
HISTORICAL AND PALEONTOLOGICAL RESOURCES							
79	Should any graves be found, all construction activities must be suspended, and an archaeologist be immediately contacted. The discovered graves must be cordoned off.	YES			Confirmed by Enquiry	No additional heritage or paleontological sites have been found since the start of the project.	
80	If there are any changes to the layout of the turbines, then additional survey work will be required in order to ensure that no sites are directly impacted and/or to identify the need for an excavation permit.	YES			Confirmed by Enquiry	Sites were inspected by a specialist where turbine/laydown areas were changed.	
HAZARDOUS MATERIALS AND WASTE MANAGEMENT							
81	Areas around fuel tanks must be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.	YES			Inspection of assets	Compliant	Plate 3-25
82	Leakage of fuel must be avoided at all times and if spillage occurs, it must be remedied immediately.	YES			Confirmed by Enquiry	Compliant	
83	Hazardous waste such as bitumen, oils, oily rags, paint tins etc. must be disposed of at an approved hazardous waste landfill site	YES			Inspection of relevant records or documents	Compliant	
84	During the construction phase of the development, an effective monitoring system must be put in place to detect any leakage or spillage of all hazardous substances during their transportation, handling, installation and storage. The applicant must ensure that precautionary measures to limit the possibility of oil and other toxic liquids from entering the soil or Stormwater system are in place.	YES			Inspection of relevant records or documents	Compliant	
85	Streams, river, pans, wetlands, dams and their catchments must be protected from erosion, direct or indirect spillage of pollutants.	YES			Confirmed by Enquiry	The site layout place restricts any activities from taking place within or near areas of concern or high environmental value.	
86	No dumping or temporary storage of any materials may take place outside designated and demarcated laydown areas, and these must all be located within areas of low environmental sensitivity.	YES			Inspection of assets	Compliant. Each construction crew maintained an adequate number of waste bins. The facilities main waste storage area is properly marked, maintained and frequently serviced by EnviroServ.	Plate 3-8
87	Hazardous substances must not be stored where there could be accidental leakage into surface or subterranean water.	YES			Inspection of assets	Compliant	
88	The applicant must ensure that an effective monitoring system is put in place to detect any leakage or spillage of all hazardous substances	YES			Inspection of relevant records or documents	Compliant. Regular inspection of the storages areas takes place and issues are recorded.	



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
89	Hazardous and flammable substances must be stored and used in compliance to the applicable regulations and safety instructions. Furthermore, no chemicals must be stored, nor any vehicle maintenance must occur within 350 m of the temporal zone of wetlands, whether a drainage line with or without an extensive floodplain or hillside wetlands.	YES			Inspection of assets	Compliant. Flammable substances are stored within a designated area with appropriate firefighting equipment nearby. No servicing of vehicles takes place on the project property.	
90	Temporary bunds must be constructed around chemical storage to contain possible spills.	YES			Inspection of assets	Bunding has been constructed around the chemical storage area.	Plate 3-25
91	Spill kits must be made available on-site for the clean-up of spills.	YES			Inspection of assets	Spillage kits were distributed to different working areas	
92	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 shall 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)	YES			Inspection of relevant records or documents	The Integrated waste and water management plan is available for inspection at the construction camp as per the CEMPr.	
93	Temporary ablution facilities must be provided for staff at all times during the construction phase. The ablutions must be cleaned regularly with associated waste being disposed of at a registered/permitted waste site and must be removed from the site when construction phase is completed.	YES			Inspection of relevant records or documents	Each contractor has been made responsible for the availability of ablution facilities for their staff. Records were made available for the number provided as well as their waste disposal area.	
STORM WATER MANAGEMENT							
94	Construction must include appropriate 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.	YES			Inspection of relevant records or documents	Compliant. Designs have adhered to the recommendation of the Stormwater management plan.	
HUMAN HEALTH AND SAFETY							
95	A health and safety programme must be developed to protect both workers and the general public during construction, operation and decommissioning of the wind energy facility. The programme must establish a safety zone for wind turbine generator from residences and occupied buildings, roads, right-of-ways, and other public access areas that is sufficient to prevent accidents resulting from the operation if wind turbine generators.	YES			Inspection of relevant records or documents	Compliant.	
96	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 NEMA Regulations, Government Notice 386 and 387 of 2006.	YES			Inspection of assets	Compliant.	
97	Potential fire hazards must be managed by ensuring that no fire is permitted on site and that the constructors must be aware of the consequences of starting fire on site to avoid damage to the neighbouring farms.	YES			Inspection of relevant records or documents	Compliant.	
99	The applicant must ensure that the operation of the wind facility has minimal electromagnetic interference (EMI) (i.e. impacts to microwave, radio and television transmissions) and should comply with the relevant communication regulation.	YES			Confirmed by Enquiry	Compliant.	
100	The applicant must obtain a written permit or approval from the South Africa Civil Aviation Authority that the wind facility will not interfere with the performance of aerodrome radio Communication, Navigation and Surveillance (CNS) equipment especially the radar prior to commencement of the activity. The approval/permit must be submitted to the Director: Environmental Impact Evaluation	YES			Inspection of relevant records or documents	Compliant: Permit was made available for audit	
101	The applicant must train safety representatives, managers and workers in workplace safety. The construction process must be compliant with all safety and health measures as prescribed by the relevant act.	YES			Inspection of relevant records or documents	Compliant.	
102	Liaison with landowners/farm managers is to be done prior to construction in order to provide sufficient time for them to plan agricultural activities. If possible, construction should be scheduled to take place within the post-harvest, pre planting season, when fields are lying fallow.	YES			Inspection of relevant records or documents	Compliant.	
EXCAVATION AND BLASTING ACTIVITIES							
103	Underground cables and internal access roads must be aligned as much as possible along existing infrastructure to limit damage to vegetation and watercourses.	YES			Inspection of assets	Compliant: Inspection of project designs and roads layout	
104	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.	YES			Inspection of assets	Compliant	Plate 3-16
105	Borrow materials must be obtained only from authorized and permitted sites.	YES			Confirmed by Enquiry	Compliant: Permit for borrow pit available for audit.	



EA CONDITIONS	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
106	Anti-erosion measures such as silt fences must be installed in disturbed areas.	YES			Confirmed by Enquiry	Compliant. Disturbed areas have been identified and appropriate anti-erosion measures are in place.	
OVERHEAD POWERLINE							
107	All sections of the proposed powerline passing over, or in close proximity of grasslands, rivers, wetlands, and dams must be marked with suitable bird flight diverters in order to deter large birds from colliding with any powerline. Additional areas of high sensitivity along the preferred alignment must be identified by an avifaunal specialist for the fitment of anti-collision devices according to Eskom Transmission Guidelines.	YES			Inspection of assets	Compliant. Areas of the powerline still require construction, however those that have been constructed conform to the requirements. Bird flight diverters are in place.	
108	A Search and Rescue (S&R) operation of all the Red Data as well as rare endangered plants must be undertaken on the exact spots selected on which the pylons will be erected by a suitable qualified botanist. All plants present must be surveyed and collected for documentation at South National Biodiversity Institute (SANBI) and particular species, especially those which are rare and threatened species are moved to nurseries for re-establishment after construction and/or relocated to protected areas.	YES			Inspection of relevant records or documents	Compliant. Copies of search and rescue reports were made available for review.	
TURBINES							
109	Turbines must be positioned in such a way that they are at least 500m away from farm complexes, most of which have moderate degree of heritage significance.	YES			Inspection of relevant records or documents	Compliant: Inspection of project designs	
110	Turbines must be positioned in such a way that shadow flicker does not affect any farm complexes	YES			Confirmed by Enquiry	Compliant.	
111	Facility and infrastructure must not be placed at any slope that is steeper than 18%, preferable be placed on the crest landscape.	YES			Inspection of relevant records or documents	Compliant.	
112	Wind turbines and associated laydown areas and access roads which could potentially impact on sensitive areas must be shifted in order to avoid these areas of high sensitivity.			N/A		Compliant. Turbine foundations and laydown areas have been shifted away from sensitive areas.	
113	The recommendations of the EAP in the EIAR dated February 2016 and the specialist studies attached must be adhered to. In the event of any conflicting mitigation measures and conditions of the Environmental Authorisation, the specific condition of this Environmental Authorisation will take preference.	YES			Confirmed by Enquiry	Compliant.	
GENERAL							
114	A copy of this environmental authorisation, the audit and compliance monitoring reports, and the approved EMP, must be made available for inspection and copying-						
	114.1. at the site of the authorised activity;	YES			Inspection of relevant records or documents	Compliant.	
	114.2. to anyone on request; and	YES			Confirmed by Enquiry	Compliant.	
	114.3. where the holder of the environmental authorisation has a website, on such publicly accessible website.	YES			Confirmed by Enquiry	Compliant.	
115	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.			N/A		Compliant.	

TOTAL COUNT 99 1 25



2.4 ENVIRONMENTAL MANAGEMENT PLAN CHECKLIST

CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
Chapter 7: Section 7.1	SITE ESTABLISHMENT						
Section 7.1 Page 28	The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment ;however, before construction can begin, the contractor shall submit to the Site Manager acting for Amstilite for his approval a site layout plan detailing plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place. In particular, this plan must include: -						
	(a) Site access (including entry and exit points).	YES			Inspection of assets	Compliant	
	(b) Access and haulage routes.	YES			Inspection of assets	Compliant	
	(c) All material and equipment storage areas (including storage areas for hazardous substances such as fuel and chemicals) - only designated areas may be used for the storage of materials, machinery, equipment and site offices.	YES			Inspection of assets	Compliant	
	(d) Construction offices and other structures (accommodation for staff, where required and considered appropriate). Preferred locations would be flat areas within the proposed project area. The ecological specialist should be consulted as to the positioning of temporary structures.	YES			Inspection of assets	Compliant	
	(e) Areas where construction vehicles will be serviced.			N/A	Confirmed by Enquiry	Vehicles are not serviced on the property. Servicing takes place on a nearby farm plot.	
	(f) Security requirements (including temporary and permanent fencing, and lighting) and accommodation areas for security staff.	YES			Inspection of assets	Compliant. There is currently no accommodation for security staff on the properties. All properties and site offices are fenced.	
	(g) Areas where vegetation will be cleared.	YES			Inspection of assets	Compliant	
	(h) The locality as well as the layout of the temporary waste storage facilities for litter, kitchen refuse, sewage and workshop-derived effluents. Waste storage facilities for sewage, grey water and workshop-derived effluents, where no formal facilities exist.	YES			Inspection of assets	Compliant	
	(i) Storm water control measures.	YES			Inspection of assets	Compliant. Storm Water Monitoring plan is in place.	
	(j) Potential pollution hazards and mechanisms to manage these	YES			Inspection of assets	Compliant. Hazardous Material Management Plan	
	(k) Intended mitigation measures regardless of the chosen site for approval by the ECO.	YES			Inspection of assets	Compliant	
	The site plan shall be submitted no later than the first site meeting. Photographs shall be taken of the proposed site before any clearing may commence.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.	YES			Inspection of assets	Compliant	
Section 7.1.1	Water for human consumption should be available at the site offices and at other convenient locations on site	YES			Inspection of assets	Compliant	
Section 7.1.2	The Contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The Contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.	YES			Inspection of assets	Compliant. Each contractor has an agreement in place with ablution companies to provide adequate number of facilities as well as cleaning services.	
Section 7.1.3 Page 29	SEWAGE MANAGEMENT						
	All effluent water from the camp/office sites shall be disposed of or stored in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams, etc.). Only domestic type wastewater shall be allowed to enter this drain.	YES			Inspection of relevant records or documents	Compliant	
	Particular reference in the site establishment plan shall be given to the management of sewage generated at the site offices, and on-site facilities for labour. Sanitary arrangements should be to the satisfaction of the ESO and ECO.	YES			Inspection of assets	Compliant. Waste Management Plan	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	The Contractor must provide the necessary ablution facilities for all his employees. These must be easily accessible (within 500m of any point of work), transportable and there should be a minimum of 1 toilet per 15 persons.	YES			Inspection of assets	Compliant. Proof of contract has been provided for each of the contractors on site to provide facilities to their workers.	
	Performing ablutions outside the toilet facilities is strictly prohibited. Use of the veld for this purpose shall not, under any circumstances, be allowed.	YES			Confirmed by Enquiry	Compliant	
	The toilets shall be secured and provided with an external closing mechanism to prevent toilet paper from being blown out.	YES			Inspection of assets	Compliant	
	The toilets must be sited more than 50m away from any identified environmentally sensitive areas, drainage lines and water resources.	YES			Inspection of relevant records or documents	Compliant	
	Only approved chemical toilets shall be used.	YES			Inspection of relevant records or documents	Compliant	
	The Contractor shall arrange for regular emptying of toilets (toilets must be emptied daily) and will be entirely responsible for enforcing their use and for maintaining these facilities in a clean, orderly and sanitary condition to the satisfaction of the ESO and ECO.	YES			Inspection of relevant records or documents	Compliant	
Chapter 7: Section 7.2	FLORA (Vegetation)						
Section 7.2 Page 29	The following mitigation measures must be implemented to ensure the least possible impact on the local vegetation: This information shall form part of the Environmental Education Programme to be affected by the Contractor.						
	CONSTRUCTION PHASE:						
	The Contractor has a responsibility to inform all staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.	YES			Confirmed by Enquiry	Compliant	
	The natural vegetation encountered on the site is to be conserved and left as intact as possible.	YES			Inspection of assets	Compliant	
	Re-vegetation of disturbed areas must be undertaken with site indigenous species and in accordance with the instructions issued by the ECO.			N/A		Not yet applicable	
	Only trees and shrubs directly affected by the works, and such others as may be indicated by the ECO in writing, may be felled or cleared.	YES			Inspection of assets	Compliant	
	The ECO must undertake a targeted survey of protected trees to identify any individuals of protected species. These must be marked with red tape.	YES			Inspection of relevant records or documents	Compliant	
	A permit must be obtained from the Department of Agriculture, Forestry and Fisheries (DAFF) prior to the removal or damage of any protected tree species	YES			Inspection of relevant records or documents	Compliant. ToPS Permit to relocate E Melaformis was available for audit	
	A permit must be obtained from the Department of Economic Development Environmental Affairs and Tourism for the removal of Species of Special Concern (SCC).	YES			Inspection of relevant records or documents	Compliant	
	Sensitive areas adjacent to the construction area, including all potential habitats for threatened species, must be clearly demarcated and no construction activities or impacts must be permitted to occur across these demarcations. Demarcated areas must be fenced off or clearly demarcated with red tape and no personnel or equipment must be permitted to enter these areas.	YES			Inspection of assets	Compliant	
	The project specification for the rehabilitation of grass cover should be strictly adhered to.			N/A		Not yet applicable	
	Any proclaimed weed or alien species that germinates during the contract period shall be cleared by hand before flowering.	YES			Inspection of relevant records or documents	Compliant. Alien Vegetation Management Plan.	
	A firebreak shall be cleared and maintained around the perimeter of the site camp and office site.	YES			Inspection of assets	Compliant	
	A strict monitoring plan must be implemented to prevent the additional spread and the continued removal of alien species such as those of Opuntia species, which were already present on site or that become established on areas that were disturbed during construction. See specific details regarding alien vegetation management in Section 7.15 of this document.	YES			Inspection of relevant records or documents	Compliant. Alien Vegetation Management Plan.	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	Thicket patches on site should not be disturbed.	YES			Inspection of assets	Compliant	
	The rocky outcrops should be avoided as they provide suitable habitat for a number of SCC and may harbour more SCC. This area should be cordoned off by the ECO as a no-go area prior to construction activities.	YES			Inspection of assets	Compliant. Search and Rescue Method Statement	
	OPERATION PHASE:						
	The Contractor has a responsibility to inform all staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.			N/A		Not yet applicable	
	Maintenance of areas set aside within the site for conservation must take place to ensure that these are not being impacted further in any way.			N/A		Not yet applicable	
Section 7.3	REHABILITATION (Not yet applicable)						
	The construction areas and areas where site offices were erected will require rehabilitation at the end of the contract. The area will require ripping and the re-spreading of topsoil to generate vegetation. In this regard, the following rehabilitation strategies apply:-						
Section 7.3 Page 30/31	Suitable plant species for re-vegetation must be determined early in the re-vegetation programme			N/A		Not yet applicable	
	Depending on the variation in soil types on the micro-scale, it shall be important to differentiate different soil characteristics during rehabilitation for the purpose of separating soil types. The correct soil types must be replaced in the areas from which they were originally removed. This is important as it relates to rehabilitated plants which may only grow in specific soil types.			N/A		Not yet applicable	
	Rehabilitation must be scheduled to take place as soon as possible after construction has been completed with acceptable cover being achieved after 3 months.			N/A		Not yet applicable	
	Ongoing monitoring and maintenance of rehabilitation works should be undertaken, especially following construction of any roads or digging of trenches for cables.			N/A		Not yet applicable	
	All construction material, including concrete slabs are to be removed from the site on completion of the contract.			N/A		Not yet applicable	
	An indigenous re-vegetation strategy must be developed and implemented, especially of disturbed areas. This can provide a buffer to protect remaining indigenous vegetation from invasion by weeds and alien invader plants.			N/A		Not yet applicable	
Section 7.4	FAUNA						
	The following measures must be implemented:						
Section 7.4 Page 31	During construction, sensitive habitats must be avoided by construction vehicles and equipment, wherever possible. Only necessary damage may be caused and, for example, unnecessary driving around in the veld or bulldozing natural habitat must not take place.	YES			Inspection of relevant records or documents	Compliant	
	Construction activities must remain within defined construction areas. No construction / disturbance will occur outside these areas.	YES			Inspection of assets	Compliant	
	The extent of lay down areas must be minimal and they should not be located in areas that provide habitat for any faunal SSC.	YES			Inspection of relevant records or documents	Compliant. Proof of search and rescue walk throughs. No SSC recorded to date.	
	The Contractor shall ensure that all identified highly sensitive habitats are protected as demarcated no-go areas through fencing or other suitable means.	YES			Inspection of assets	Compliant	
	Buffer zones shall be provided around sensitive habitats.	YES			Inspection of assets	Compliant	
	If any fencing is to be done; the fences should have enough space between wires for small animals to move across them uninhibited	YES			Inspection of assets	Compliant	
	The removal, damage or disturbance of fauna or avifauna will be forbidden in all demarcated no-go areas or specified environmentally sensitive areas.	YES			Confirmed by Enquiry	Compliant	
	The ECO will make the Contractor aware of any Ordinances, Acts, by-laws, or regulations pertaining to the protection of fauna on the site. Where applicable, the Contractor will apply for the necessary permits prior to removing any animals listed in the relevant schedules promulgated in terms of any relevant legislation.	YES			Inspection of relevant records or documents	Compliant. Proof of notifications from ECO and availability of permits for audit	
	The trapping of any animal is strictly prohibited. Any animal killed as a result of trapping or hunting or found in the possession of an employee of the Contractor will result in that employee being removed from site for the duration of the Contract.	YES			Confirmed by Enquiry	Compliant	
	No domestic pets or livestock will be permitted on site during the construction period.	YES			Confirmed by Enquiry	Compliant	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
Section 7.4.1	AVI-FAUNA						
	BIRDS						
Section 7.4.1 Page 32	Due to the potential fatalities of birds and bats resulting from the proposed project, Amstilite (RF) Proprietary Limited shall take every precaution in reducing the number of these animals that die as a result of the wind turbines and associated infrastructure.						
	Wind turbines should have technology that reduces the amount of noise produced by their machines. This will especially reduce the disturbance to nesting birds			N/A		Not yet applicable	
	Associated infrastructure such as power lines also impact on birds. Where possible cabling and/or power lines should be buried, and not put on poles and run overland. Where this is not possible the power line must be marked with a suitable marking device for collision-prone species.			N/A		Not yet applicable	
	Intermittent lighting must be used if possible (i.e. if it does not contradict aviation regulations), as well as red light which is less attractive than white light			N/A		Not yet applicable	
	A formal operational monitoring programme must be implemented under the Best Practice Guidelines available at the time by a suitably experienced avifaunal specialist for at least the first two years of the operational phase			N/A		Not yet applicable	
	As part of the monitoring programme, daily searches for carcasses must be undertaken.			N/A		Not yet applicable	
	Depending on the results of the carcass searches, a range of mitigation measures will be considered which will be guided by a suitable experienced avifaunal specialist if mortality levels turn out to be significant.			N/A		Not yet applicable	
	All spoil material (soil, rock, trees) should be removed from site, not piled on site as this results in additional areas of habitat removal.			N/A		Not yet applicable	
	A systematic bird monitoring programme should be implemented at this facility (including the grid connection power line) once operational, as per the current best practice guidelines in this regard (Jenkins et al, 2015 update in prep).			N/A		Not yet applicable	
	The proposed pole structure for the overhead power line on site should be sent to the specialist for approval. It is essential that this structure is safe for vultures and large eagles.			N/A		Not yet applicable	
Section 7.4.2	BATS						
	Mitigation measures to reduce bat fatalities are:						
Section 7.4.2 Page 34	A formal operational monitoring programme must be implemented under the Best Practice Guidelines available at the time by a suitably experienced bat specialist for at least the first two years of the operational phase.			N/A		Not yet applicable	
	As part of the monitoring programme, daily searches for carcasses must be undertaken.			N/A		Not yet applicable	
	Depending on the results of the carcass searches, a range of mitigation measures will be considered which will be guided by a suitably experienced bat specialist if mortality levels turn out to be significant.			N/A		Not yet applicable	
	Wind turbine operating times should be restricted during times when bat activity is high as directed by the bat specialist. Bats are at higher risk of fatality on nights with low wind speeds.			N/A		Not yet applicable	
	It is recommended that bat fatalities, and their causes at the wind farm are monitored, as there is little information available for wind farms in South Africa. More applicable mitigation measures can be applied when there is more information.			N/A		Not yet applicable	
Chapter 7: Section 7.5	WASTE MANAGEMENT						
Section 7.5 Page 34	The Contractor’s intended methods for waste management and waste minimisation must be implemented at the outset of the contract, and approved by the ECO.	YES				Compliant	
	All personnel shall be instructed to dispose of all waste in the proper manner	YES				Compliant	
	All waste generated on site, must be removed from the site and disposed of at a licensed waste disposal site	YES				Compliant	
	No waste from construction or otherwise, may be disposed of on site	YES				Compliant	
	Adequate litter drums or other suitable containers must be located on site to ensure that waste generated on site is disposed of in suitable and timeous manner.	YES				Compliant	
	Where possible, some of the construction waste should be recycled and used in construction			N/A		Not yet possible as contractor is yet to find the closest recycling site.	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
Chapter 7 Section 7.5.1	SOLID AND LIQUID WASTE						
Section 7.5.1 Page 34	Solid waste shall be stored in a designated area within the site area in covered, tip proof drums for collection and disposal.	YES			Inspection of assets	Evidence of waste bins were found at each of the sites where construction activities were taking place.	
	All refuse containers must be free of any holes and in good condition. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the ESO and ECO	YES			Inspection of assets	Compliant	
	As far as possible, general waste (including paper, glass, plastics, aluminium, etc.) shall be sorted for recycling.	YES			Inspection of assets	There are currently no recycling facilities available in the nearby area. All general waste is separated at the site and removed by EnviroServ to a registered site.	
	Disposal of solid waste shall be at a DEA licensed landfill site, or at a site approved by DEA in the event that an existing operating landfill site is not within reasonable distance from the site	YES			Inspection of relevant records or documents	Compliant. EnviroServ has been contracted to collect all waste from the site and have been granted permission to dump at a registered site.	
	No waste shall be burned.	YES			Confirmed by Enquiry	Compliant	
	Any water contaminated by cement shall not be allowed to flow freely into the environment. Instead, it must be contained, and solids allowed to settle out. Thereafter, the solid material shall be disposed of to a landfill site with other solid waste.			N/A	Inspection of relevant records or documents	Compliant. No records of contaminated water have been recorded.	
Section 7.5.2 Page 35	No littering by construction workers must be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition, and the site is to be kept free of litter.	YES			Inspection of assets	Partially compliant. Although the majority of the site was kept waste free, areas were observed with litter scattered around. The ECO did stop the vehicle to collect all visible litter.	
	During the construction period, the facilities shall be maintained in a neat and tidy condition, and the site is to be kept free of litter.	YES			Inspection of assets		
	Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work, the Contractor shall provide litter collection facilities for later safe disposal at DEA approved waste disposal sites.	YES			Inspection of relevant records or documents	Compliant	
	At all places of work, the Contractor shall provide litter collection facilities for later safe disposal at DEA approved waste disposal sites.	YES			Inspection of assets	Compliant	
Chapter 7 Section 7.5.3	HAZARDOUS WASTE						
Section 7.5.3 Page 35	Hazardous waste such as bitumen, oils, oily rags, paint tins etc. shall be disposed of at a DEA approved hazardous waste landfill site.	YES			Inspection of relevant records or documents	Compliant. EnviroServ has been contracted to collect all waste from the site and have been granted permission to dump at a registered site.	
	Special care should be taken to avoid spillage of hazardous waste from entering the ground or contaminating water. In the event of the above occurring, the affected areas shall be promptly reinstated to the satisfaction of the ECO.	YES			Inspection of assets	Compliant. Oil spill kits are available at each of the construction sites.	
	As far as possible, maintenance of machinery and vehicles on site should be avoided. Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery should be collected in a holding tank and returned to the supplier			N/A		Compliant. No maintenance or servicing of vehicles takes place on the property.	
	Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery should be collected in a holding tank and returned to the supplier	YES			Confirmed by Enquiry	Compliant	
	Water and oil should be separated in an oil trap. Oils collected in this manner, should be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials	YES			Confirmed by Enquiry	Compliant	
	Oil collected by a mobile servicing unit should be stored in the service unit’s sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company. The Contractor shall ensure that an emergency preparedness plan is in place for implementation in the case of a spill or substances which can be harmful to an individual or the receiving environment.			N/A		No servicing is allowed on site	
	The Contractor shall ensure that an emergency preparedness plan is in place for implementation in the case of a spill or substances which can be harmful to an individual or the receiving environment.	YES			Inspection of relevant records or documents	Compliant	
	All used filter materials should be stored in a secure bin for disposal off site. Hazardous waste shall not be stored or stockpiled in any area other than that designated on the construction site layout.	YES			Confirmed by Enquiry	Compliant. Hazardous Material Management Plan.	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
	Hazardous waste shall not be stored or stockpiled in any area other than that designated on the construction site layout.	YES			Inspection of assets	Compliant. All waste is stored in the designated waste storage site at the camp offices.	
	Any contaminated soil should be removed and replaced. Soils contaminated by oils and lubricants should be collected and disposed of at a facility designated by the local authority to accept contaminated materials.	YES			Confirmed by Enquiry	The contaminated soil is currently stored into hazardous waste bins. These are services and collected by EnviroServe on a regular basis.	
	Washing of vehicles on the construction site should not be permitted as this is likely to result in release of hydrocarbon-contaminated wash water into the environment.	YES			Confirmed by Enquiry	Compliant	
Chapter 7: Section 7.6	MAINTENANCE AND MACHINERY						
Section 7.6.1	SAFETY						
	All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the Contractor to, and used or worn by the staff whose duty it is to manage and maintain the supplier's plant, machinery and equipment	YES			Confirmed by Enquiry	Compliant	
Section 7.6.2 Page 36	HAZARDOUS MATERIAL STORAGE						
	Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions.	YES			Inspection of assets	Compliant	
	All hazardous materials (e.g. oils, lubricants, paints etc) will be stored in a secured, appointed area that is fenced and has restricted entry	YES			Confirmed by Enquiry	Compliant	
	The Contractor must keep a register of all hazardous material stored on site and there must be a Material Safety Data Sheet (MSDS) on file for each. Storage of hazardous products shall only take place using suitable containers approved by the ECO.	YES			Inspection of relevant records or documents	Two hazardous waste skips have been provided and place at the waste area	
	The Contractor shall provide proof to the Site Manager acting for Amstilite that relevant authorisation to store such substances has been obtained from the relevant authority.	YES			Inspection of relevant records or documents	Compliant	
	In addition, hazard signs indicating the nature of the stored materials shall be clearly displayed on the storage facility or containment structure	YES			Inspection of assets	Compliant	
	Before containment or storage facilities can be erected, the contractor shall furnish the Site Manager acting for Amstilite with details of the preventative measures which are proposed to be installed in order to mitigate against pollution of the surrounding environment from leaks or spillage	YES			Confirmed by Enquiry	Compliant	
	The proposals shall also indicate the emergency procedures to be implemented in the event of misuse or spillage of substances that will negatively impact on an individual or the environment.	YES			Inspection of relevant records or documents	Compliant	
Section 7.6.3 Page 36	FUEL AND GAS STORAGE						
	Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers.	YES			Inspection of assets	Compliant. Two 23,000L self bunded fuel tanks are present	
	Storage of fuel and gas will be confined to the demarcated secure area(s).	YES			Inspection of assets		
	Areas around fuel tanks are to be bunded or contained in an appropriate manner as per the requirements of SABS 089:1999 Part 1.	YES			Inspection of assets		
	Fuel tanks shall be located at least 3.5m from buildings, boundaries and any other combustible or flammable material.	YES			Inspection of assets	Compliant. Tanks are further than the required distance	
	Leakage of fuel shall be avoided at all times and if found to occur shall be remedied immediately. Suitable and adequate supplies of absorbents shall be available at all times to control and absorb any spillages.	YES			Inspection of assets	Compliant. Materials are present for emergency spills response	
	The Contractor will ensure that an emergency preparedness plan is in place for implementation in case of leakage or spillage of fuel which can be harmful to an individual or the receiving environment.	YES			Inspection of relevant records or documents	Compliant. Hazardous Material Management Plan	
	An adequate bund wall (110% volume) shall be provided for fuel and diesel areas to accommodate any spillage or overflow of these substances. The area inside the bund wall should be lined with an impervious lining to prevent infiltration of the fuel into the soil.	YES			Inspection of assets	Compliant. Two 23,000L self bunded fuel tanks are present. The bund wall meets the requirements	
	Where provision is made for draining water from bunded area, such drains shall be so controlled as to prevent hazardous products from entering natural water courses, public sewers or public drains.	YES			Confirmed by Enquiry	Compliant	
	No storage of any combustible materials (paper, cardboard, wood etc) shall be permitted in any bunded area.	YES			Inspection of assets	Compliant	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	Generators and fuel supply needed during construction must be placed on trays, which can rest on clean sand.	YES			Inspection of assets	Compliant	
	Once construction has been completed, this sand must be removed from the site and disposed of at a registered waste site			N/A		Not Yet Applicable	
	All storage tanks shall be removed after construction			N/A		Not Yet Applicable	
	Gas welding cylinders and LPG cylinders should be stored in a secure, well-ventilated area which is clearly marked with hazard signs.			N/A		Not Yet Applicable	
Section 7.6.3 Page 37	FIRES						
	Due to the frequent high winds at the site, no open fires will be permitted on the site.	YES			Confirmed by Enquiry	No open fires have been were observed during this reporting period.	
	Where fires are unavoidable, the Contractor shall ensure the management of fires emanating from construction camps and that education of the work force concerning management of fires is undertaken.	YES			Confirmed by Enquiry	Compliant	
Chapter 7 : Section 7.7	CLEARING OF THE SITE						
Section 7.7 Page 37	In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, either within the construction area, or at designated or instructed areas outside the construction area, a plan of action shall first be submitted to the Site Manager acting for Amstilite and ECO for approval. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.	YES			Inspection of relevant records or documents	Compliant. Records are kept on site of all clearance activities	
	The contractor shall be responsible for the re-establishment of grass within the development boundaries for all areas disturbed during construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated from, construction has to be stored temporarily or otherwise within the construction area, or at designated or instructed areas outside the construction area. This responsibility shall extend until expiry of the defects notification period.			N/A		Not Yet Applicable as the site is still under construction	
Chapter 7: Section 7.8	SOIL MANAGEMENT						
Section 7.8.1 Page 37	TOPSOIL						
	Topsoil shall be removed from all areas where physical disturbance of the surface would occur and shall be stored and adequately protected.	YES			Confirmed by Enquiry	Compliant	
	The contract shall provide for the stripping and stockpiling of topsoil from the site for later re-use	YES			Inspection of assets	Compliant	
	Topsoil is considered to be the natural soil covering, and to include all organic matter	YES			Confirmed by Enquiry	Compliant	
	Depth may vary at each site and must be determined on a site-specific basis and removed accordingly.	YES			Confirmed by Enquiry	Compliant	
	The areas to be cleared of topsoil shall include the storage areas and site camps.	YES			Confirmed by Enquiry	Compliant	
	All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition	YES			Confirmed by Enquiry	Compliant	
	Weeds appearing on the stockpiled topsoil shall be removed by hand.	YES			Confirmed by Enquiry	Compliant	
	The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water such that damming, or erosion is caused, or itself be eroded through the action of water.	YES			Inspection of assets	Compliant	
	Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months shall be analysed and, if necessary, nutrient levels replenished before replacement.	YES			Inspection of assets	Compliant	
	Soils contaminated by hazardous substances shall be disposed of at a DEA hazardous waste disposal site.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall ensure that minimal amounts of topsoil are lost due to erosion, either by wind or water. This can be facilitated through the grassing of topsoil stockpiles	YES			Inspection of assets	Compliant	
	Areas to be top-soiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns.	YES			Inspection of assets	Compliant	
	The Contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and re-vegetation.			N/A		Rehabilitation will commence once the construction phase has been completed.	
	The Contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the ECO			N/A		Not Yet Applicable	
	The Contractor's responsibility shall also extend to the clearing of drainage or water systems that may have been affected by such negligence within and beyond the boundaries of the road reserve.			N/A		Not Yet Applicable	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
Section 7.8.2	SUB-SOIL The subsoil is the layer of soil immediately beneath the topsoil. This layer of soil shall be removed to a depth instructed by the ECO, and stored separately from the topsoil if not used for construction purposes	YES			Inspection of assets	Compliant	
Chapter 7: Section 7.9	DRAINAGE						
Section 7.9 Page 38	The following general specifications apply to all storm water management and site drainage considerations:						
	The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities.	YES			Inspection of relevant records or documents	Water monitoring reporting has taken place	
	Before a site is developed or expanded, the effect on the drainage pattern as a result of this development or expansion shall be established.	YES			Confirmed by Enquiry	Compliant	
	Recognised water users/receivers must not be adversely affected by the development.	YES			Confirmed by Enquiry	Compliant	
	No water source shall be polluted in any way due to proposed changes.	YES			Confirmed by Enquiry	Compliant	
	Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion, direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous products.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall submit in writing to the Site Manager acting for Amstilite and ECO his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature, or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff such that they function correctly under heavy rain conditions.	YES			Confirmed by Enquiry	Compliant	
	Measures shall be put in place to protect the hill slopes in the catchment area against erosion as a precaution in areas affected by the exposing of unconsolidated soils during construction of the wind energy facility.	YES			Inspection of relevant records or documents	Compliant	
	Storage containers must be regularly inspected so as to prevent leaks into the aquatic system.	YES			Confirmed by Enquiry	Compliant	
Chapter 7: Section 7.10	EARTHWORKS AND LAYERWORKS						
	EXCAVATION HAULING AND PLACEMENT						
	The contractor shall provide the Site Manager acting for Amstilite and ECO with detailed plans of his intended construction processes prior to starting any excavations	YES			Confirmed by Enquiry	Compliant	
	The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated	YES			Confirmed by Enquiry	Compliant	
Section 7.10.1 Page 39	The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity.	YES			Confirmed by Enquiry	Compliant	
	SPOIL SITES						
	The contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period			N/A		N/A	
	Before spoil sites may be used, proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the Site Manager acting for Amstilite and ECO for his approval			N/A		N/A	
Section 7.10.2 Page 39	The location of these spoil sites shall have signed approval from the affected landowner before submission to the Site Manager acting for Amstilite			N/A		N/A	
	No spoil site shall be located within 500m of any watercourse.			N/A		N/A	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after revegetation.			N/A		N/A	
	The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding environment. Such special measures shall require the approval of the relevant provincial or national authority			N/A		N/A	
	Ideally, the storage of excavated material on site should be minimised to avoid unnecessary impacts to the local environment	YES			Inspection of assets	Compliant	
Section 7.10.3 Page 39	STOCKPILES						
	The contractor shall plan his activities so that excavated materials, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the Site Manager acting for Amstilite and ECO for their approval, together with the contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.	YES			Confirmed by Enquiry	Compliant	
	The areas chosen temporary stockpile shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations	YES			Confirmed by Enquiry	Compliant. Areas are inspected by the site ECO prior to their deposit	
	Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles	YES			Confirmed by Enquiry	Compliant	
	During the life of the stockpiles the contractor shall at all times ensure that they are:						
	Positioned and sloped to create the least visual impact;	YES			Inspection of relevant records or documents	Compliant	
	Constructed and maintained so as to avoid erosion of the material, generation of dust and contamination of surrounding environment; and	YES			Inspection of assets	Compliant	
	Kept free from all alien/undesirable vegetation.	YES			Inspection of assets	Compliant. No alien vegetation present in the stockpile areas.	
	After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site.	YES			Inspection of assets	Compliant. Sites appear to be cleared after materials are removed for backfilling purposes.	
	Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the contractor's cost until clearance from the Site Manager acting for Amstilite and the relevant National Authority is received.			N/A		Not Yet Applicable. Areas still used for construction purposes	
	In all cases, the Site Manager acting for Amstilite shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated.	YES			Confirmed by Enquiry	Compliant	
Section 7.10.4 Page 40	BLASTING ACTIVITIES						
	Wherever blasting activity is required on the site the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives	YES			Inspection of relevant records or documents	Compliant. Experienced blasting contractor has been employed for all blasting activities.	
	In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply the Site Manager acting for Amstilite with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock	YES			Confirmed by Enquiry	Compliant	
	The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall be responsible for obtaining all necessary permits required for blasting activities.	YES			Inspection of relevant records or documents	Compliant	
Section 7.10.5 Page 40	CONCRETE BATCHING SITES						
	Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the DEA, regardless of where they are sited.			N/A		Not Yet Applicable	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	The contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities and linings to drainage channels			N/A		Not Yet Applicable	
	All sites shall adhere to the following requirements:						
	The batching activity shall be located in an area of low environmental sensitivity to be identified and approved by the ECO.	YES			Confirmed by Enquiry	Compliant. All batching takes place at the batching plant off site.	
	No batching activities shall occur on unprotected substratum of any kind (i.e. directly on the ground).	YES			Confirmed by Enquiry	Compliant. All batching takes place at the batching plant off site.	
	All wastewater and runoff from batching areas shall be strictly controlled, and cement-contaminated water shall be collected, stored and disposed of at a site approved by the ECO. Mixing trays shall be used at all mixing and supply points.			N/A		Not Yet Applicable	
	Contaminated water shall be disposed of at a waste disposal site approved by the ECO.			N/A		Not Yet Applicable	
	Effluent from concrete batch plants and crusher plants should be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the ECO for approval.			N/A		Not Yet Applicable	
	Contaminated water storage facilities shall not be allowed to overflow and appropriate protection from rain and flooding shall be implemented.			N/A		Not Yet Applicable	
	Unused cement bags are to be stored so as not to be affected by rain or runoff events.			N/A		Not Yet Applicable	
	Used bags shall be disposed of by the Contractor in the appropriate manner.			N/A		Not Yet Applicable	
	Care shall be taken to collect contaminated wash-water resulting from cleaning activities of equipment and flushing of mixers, and dispose of it in a manner approved by the ECO.			N/A		Not Yet Applicable	
	Suitable screening and containment shall be in place to prevent wind-blown contamination associated with bulk cement silos, loading and batching.			N/A		Not Yet Applicable	
	All visible remains of excess concrete shall be physically removed on completion of the plaster or concrete pour section and disposed of. All excess aggregate shall also be removed			N/A		Not Yet Applicable	
	The contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter.			N/A		Not Yet Applicable	
Section 7.11	SPILLAGES						
	CONSTRUCTION PHASE:						
Section 7.11 Page 41	Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products	YES			Confirmed by Enquiry	Compliant	
	In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.	YES			Confirmed by Enquiry	Compliant	
	Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her ESO, ECO or to the Site Manager acting for Amstilitte	YES			Inspection of relevant records or documents	Compliant. Spill kits and procedures are present for each construction site. Contractors method statements have been provided.	
	The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the ESO, ECO and the Site Manager acting for Amstilitte	YES			Inspection of relevant records or documents	Compliant. Spill kits and procedures are present for each construction site. Contractors method statements have been provided.	
	Areas cleared of hazardous waste shall be re-vegetated according to the Site Manager's instructions	YES			Inspection of assets	Compliant.	
	Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed.	YES			Inspection of relevant records or documents	There are no records available to suggest that there has been any contamination of the water supply	
	The requirement for such input shall be agreed with the Site Manager acting for Amstilitte.	YES			Confirmed by Enquiry		
	The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.	YES			Confirmed by Enquiry		
	OPERATIONAL PHASE:						



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	The Contractor shall compile and maintain environmental emergency procedures to ensure that there will be an appropriate response to unexpected or accidental environment-related incidents throughout the life cycle of the project. These plans should include:						
Section 7.11 Page 41	Emergency organisation (manpower) and responsibilities, accountability and liability.			N/A		Not Yet Applicable	
	A list of key personnel.			N/A		Not Yet Applicable	
	Details of emergency services applicable to the various areas along the route that the turbine components will need to be transported as well as for the site itself (e.g. the fire department, spill clean-up services, etc.).			N/A		Not Yet Applicable	
	Internal and external communication plans, including prescribed reporting procedures where required by legislation.			N/A		Not Yet Applicable	
	Actions to be taken in the event of different types of emergencies.			N/A		Not Yet Applicable	
	Incident management plans for the site.			N/A		Not Yet Applicable	
	Incident recording, progress reporting and remediation measures required to be implemented.			N/A		Not Yet Applicable	
	Information on hazardous materials, including the potential impact associated with each and measures to be taken in the event of accidental release.			N/A		Not Yet Applicable	
	Training plans and testing exercises and schedules for effectiveness.			N/A		Not Yet Applicable	
Section 7.12	AREAS OF SPECIFIC IMPORTANCE						
Section 7.12.1 Page 42	ARCHAEOLOGICAL SITES						
	Although the turbines will not affect these sites, it must be noted that servitudes must be placed in such a manner that they do not impede on these sites.	YES			Inspection of relevant records or documents	Compliant	
	If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the Site Manager acting for Amstilite of such discovery. The South African Heritage Resources Agency (SAHRA) shall be contacted and they will appoint an archaeological consultant to record the site and excavate if necessary. Work may only resume once clearance is given in writing by the archaeologist.			N/A			
	The group of boulders at the Ariesberg site should not be impacted upon;	YES			Inspection of assets	Compliant	
	Apply for a destruction permit from the Eastern Cape Provincial Heritage Resources Agency (ECPHRA) for the isolated Middle Stone Age scatters that are distributed across the proposed development site. One permit for the isolated scatters may be applied for.	YES			Inspection of relevant records or documents	Compliant. Permits have been applied for and received prior to clearing.	
	A 50 m no-go development buffer should be established around the stone wall on the Stompstaart Fontein 168 (GVSW1).	YES			Inspection of relevant records or documents	Compliant	
	For any alteration or demolition of structures older than 60 years, a permit applied for with the Eastern Cape Provincial Heritage Resources Authority (attention Mr Zote, mlzote@ecphra.org.za), it is possible that a Conservation Architect may need to be contacted, but this can be further discussed with the PHRA.	YES			Inspection of relevant records or documents	Compliant. No permits have been required as there have been no structures	
	The rocky outcrops should be avoided as many of them are sites of heritage significance. This area should be cordoned off by the ECO as a no-go area prior to construction activities.	YES			Inspection of assets	Compliant	
	GRAVES AND MIDDENS						
Section 7.12.2 Page 42	If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the Site Manager acting for Amstilite informed of the discovery. The National Monuments Council should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial.			N/A		No graves discovered	
Section 7.12.3 Page 42	PALAEONTOLOGICAL SITES						
	Should substantial fossil remains, such as vertebrate bones, teeth or petrified wood, be found or exposed anywhere within the study area during construction of the Golden Valley Wind Energy Facility, the responsible			N/A		No fossils exposed or found	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
	ECO should safeguard these – in situ, if feasible – and alert SAHRA as soon as possible so that appropriate mitigation can be undertaken by a professional palaeontologist.						
Section 7.13	NOISE CONTROL						
	CONSTRUCTION PHASE:						
Section 7.13 Page 43	Construction will be restricted to normal daytime working hours (08:00 – 17:00). No construction activities will take place during weekday evenings and night-time (after 17:00), on Saturdays after midday (12:00) and the entire day on Sundays unless prior arrangement with all landowners have been made.		Partial		Confirmed by Enquiry	Construction activities have occasionally taken place earlier than stipulated in the EMP in order to cast concrete for turbine foundations. Both surrounding neighbours, as well as the Department of Labour were informed of the activity and provided approval.	
	No construction piling should occur at night. Piling should only occur during the hottest part of the day to take advantage of unstable atmospheric conditions.	YES			Confirmed by Enquiry	Compliant	
	All noise-making equipment shall be turned off when not in use.	YES			Confirmed by Enquiry	Compliant	
	All equipment shall be kept in good working order.	YES			Confirmed by Enquiry	Compliant	
	All equipment shall be operated within specifications and capacity (i.e. do not overload machines).	YES			Confirmed by Enquiry	Compliant	
	Compliance with the appropriate legislation with respect to noise is mandatory.	YES			Confirmed by Enquiry	Compliant	
	The Contractor will familiarise himself with, and adhere to, any local bylaws and regulations regarding the generation of noise.	YES			Confirmed by Enquiry	Compliant	
	Construction staff should be given “noise sensitivity” training.	YES			Confirmed by Enquiry	Compliant. Training has taken place to inform all workers of noise sensitivity.	
	The Contractor will endeavour to keep noise generating activities associated with construction activities to a minimum.	YES			Confirmed by Enquiry	Compliant	
	Modern low noise emission vehicles and equipment shall be favoured on site. The details of all construction machinery and vehicles must be determined prior to construction in order to identify potentially noisy machinery and to seek possible alternatives. These details will include the manufacturer, type and noise emission data of each machinery/vehicle and how many will be used at any time. Note that manufacturers of modern vehicles and machinery provided for the international market are obliged to provide noise emission data. Where this information is not available, noise measurements must be conducted prior to use of such machinery or vehicles. A well planned and co-ordinated “fast track” procedure is implemented to complete the to	YES			Confirmed by Enquiry	Compliant	
	A well planned and co-ordinated “fast track” procedure is implemented to complete the total construction process in the area in the shortest possible time.	YES			Confirmed by Enquiry	Compliant	
	The size of explosive charges used for blasting (if required) should be optimised so as to balance breaking capacity against minimising any vibration impact and fly-rock.			N/A		Not yet applicable	
	OPERATIONAL PHASE:						
	During operation of the wind energy facility, Amstilite (RF) Proprietary Limited shall ensure that the turbine infrastructure is maintained such that noise levels in identified noise sensitive areas associated with the project do not exceed the legally acceptable level of 45 dB for affected communities or households. Periodic monitoring should be undertaken.			N/A		Not Yet Applicable	
Section 7.14	DUST CONTROL						
Section 7.14 Page 44	Appropriate dust-suppression techniques as approved by the Site Manager acting for Amstilite and ECO shall be implemented on all exposed surfaces during periods of high wind. Such measures shall include: wet suppression, chemical stabilisation, use of wind fence covering surfaces with straw or chippings, and the re-vegetation of open areas.	YES			Confirmed by Enquiry	Water-dust suppression techniques are utilised around the project site.	
	Water used for dust suppression must be applied in quantities small enough not to generate run-off and result in soil erosion.	YES			Confirmed by Enquiry	Compliant	
	Mitigation actions such as the reduction of vehicle speed and proper signage shall also be implemented.	YES			Inspection of assets	Compliant. Speed control sign are present around the project site	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
	Blasting must be restricted to periods of calm wind conditions to minimise the potential for dust dispersion	YES			Confirmed by Enquiry	Compliant	
	Vegetation cover should be maintained and vegetation cover only removed until such time as soil stripping is required.	YES			Confirmed by Enquiry	Compliant	
	Exposed soil that has the potential for generating dust shall be re-vegetated or stabilised as soon as possible after construction work is completed, or kept damp until re-vegetation occurs.			N/A	Confirmed by Enquiry	Not yet applicable	
	Excavation, handling and transport of topsoil and spoil shall be avoided during periods of excessive wind.	YES			Confirmed by Enquiry	Compliant	
	Adequate water carts shall be available on site to meet demands throughout the duration of the contract.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall ensure that loose building materials and excavated material stockpiles are adequately protected against the wind by a covering of some description, such as canvas.	YES			Inspection of assets	Compliant	
	Stockpiles may also be dampened to minimise dust generation.	YES			Inspection of assets	Compliant. Shade netting use in place of water suppression	
	Construction vehicles and machinery will be serviced on a monthly basis, with a major service every six months			N/A	Inspection of relevant records or documents	Compliant	
	Construction vehicles and machinery shall be inspected for excessive emissions.			N/A	Inspection of relevant records or documents	Compliant	
Section 7.15	ALIEN VEGETATION CONTROL						
Section 7.15 Page 45	Mitigation measures to reduce the impact of the introduction of alien invaders, as well as mitigation against alien invaders that have already been recorded on the site should be actively maintained throughout both the construction and operation phases.	YES			Inspection of relevant records or documents	Compliant. Alien Vegetation Management Plan	
	The Contractor shall be held responsible for the removal of alien vegetation within the development area disturbed for the duration of the construction phase. This includes, for example, access roads, stockpile areas, and wherever material generated for or from construction has been stored temporarily or otherwise within the development area.	YES			Confirmed by Enquiry	Compliant	
	Any proclaimed weed or alien species that germinates during the contract period shall be cleared by hand before flowering.	YES			Confirmed by Enquiry	Compliant. Alien Vegetation Management Plan	
	Removal of existing alien species shall be consistently done	YES			Confirmed by Enquiry		
	Alien plants must be removed as soon as they are detected.	YES			Confirmed by Enquiry		
	Only removed alien vegetation must be burned in an appropriate location (to be approved by the ECO), or should be disposed of in accordance with the appropriate methods developed by the Working for Water Programme, and advice from this organisation shall be obtained.			N/A		Compliant. Records show that no burning of alien vegetation has taken place. Prickly pear that is cleared is left to dry and delivered to a local company to produce mulch.	
	A pest control operator registered for the industrial application of herbicides shall apply herbicides or shall supervise the application of herbicides in compliance with the terms of the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947). The use of herbicides shall not be permitted within identified sensitive areas. Removal of alien vegetation within these areas must be undertaken by hand.			N/A		Compliant. Currently no pesticides are used within the project site for alien vegetation clearing.	
	Re-vegetation of disturbed areas must be undertaken with site indigenous species.			N/A		Not yet applicable	
	The Contractor shall avoid translocating stockpiles of topsoil from one place to another in order to avoid translocating soil seed banks of alien species.	YES			Confirmed by Enquiry	Compliant	
	Depending on the variation in soil types on the micro-scale, it shall be important to differentiate different soil characteristics during rehabilitation from the point of view of separating soil types. The correct soil types must be replaced in the areas from which they were originally removed. This is important as it relates to rehabilitated plants which may only grow in specific soil types. A horticultural specialist shall be brought in to over-see this task.	YES			Confirmed by Enquiry	Compliant	
	A strict monitoring plan must be implemented to prevent the additional spread and the continued removal of alien species such as those of Opuntia species.	YES			Inspection of relevant records or documents	Compliant. Alien Vegetation Management Plan	
Section 7.16	EROSION CONTROL MEASURE						



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Parti al	N/A			
Section 7.16 Page 45	The removal of the natural vegetation cover must be avoided and where this cannot be done, the removal should be minimised.	YES			Confirmed by Enquiry	Compliant	
	Agricultural drainage methods must be used in fill materials to remove water that could trigger slumping.			N/A		Not yet applicable	
	Perched water tables must be identified early and adequate drainage for these trigger-points provided.			N/A		Not yet applicable	
	The disturbance of the natural soil structure must be prevented, and excavations planned carefully.	YES			Confirmed by Enquiry	Compliant	
	The moving of heavy machinery into areas unnecessarily must be avoided.	YES			Confirmed by Enquiry	Compliant	
	All fill material must be very well compacted and innovative use of geo-textile materials in the retention of soil fill areas made.	YES			Confirmed by Enquiry	Compliant	
	Rainwater runoff from cut slopes must be prevented as far as possible	YES			Confirmed by Enquiry	Compliant	
	Sufficient storm water take-off points must be created in such a way that water does not have an opportunity to gather momentum.		Parti al		Inspection of relevant records or documents	No Stormwater Management Method Statement has been made available for the audit.	
	Storm water ditches must contain structures that will reduce velocity of the runoff.		Parti al		Inspection of relevant records or documents	Although currently in construction, stormwater is being effectively managed across the site. Once the construction activities have been completed, a Method Statement should be put in place.	
	The use of vegetated swales must be investigated in less steep areas.		Parti al		Inspection of relevant records or documents		
	Particular care must also be taken to ensure that no existing infrastructure such as water and sewerage reticulation lines is damaged during construction activities.	YES			Confirmed by Enquiry	Compliant	
	Any cut surfaces must be vegetated as soon as possible using local indigenous materials.			N/A	Confirmed by Enquiry	Not Yet Applicable	
	Only local indigenous vegetation shall be used for mulching.			N/A	Confirmed by Enquiry	Not Yet Applicable	
	Submit method statement for approval regarding the trenching of electrical cables across water courses. Trenching only to occur once authorisation is granted from Department of Water Affairs.	YES			Inspection of relevant records or documents	Compliant	
Section 7.17	FENCING OF THE CONSTRUCTION SITE						
Section 7.17 Page 47	Appropriate fencing should be erected around the construction site during the construction process			N/A	Confirmed by Enquiry	Not Yet Applicable. Fencing still to take place after construction of all foundations and turbine components have been delivered.	
	The clearing of vegetation for fencing shall be limited to the removal of trees and shrubs within 1m of the fence line within the construction area. Where possible, the fence line must be aligned to retain indigenous trees or tree group			N/A	Confirmed by Enquiry	Not Yet Applicable	
	There shall be no removal of grass or topsoil within this width except for rehabilitation purposes. Any existing fences damaged during construction activities shall be repaired immediately.			N/A	Confirmed by Enquiry	Not Yet Applicable	
	Any existing fences damaged during construction activities shall be repaired immediately.			N/A	Confirmed by Enquiry	Not Yet Applicable	
	The Contractor shall ensure that all identified highly sensitive habitats are protected by demarcated no-go areas through fencing or other suitable means.	YES			Inspection of assets	Complaint	
	In areas which need fencing; the fences should have enough space between wires for small animals to move across them uninhibited.	YES			Inspection of assets	Complaint	
Section 7.18	PEDESTRIAN AND TRAFFIC SAFETY						
Section 7.18 Page 47	As mentioned in Section 7.17 above, during construction the site shall be fenced off to prevent access.	YES			Inspection of assets	Compliant. The boundary of the project farm portions are fenced and access control exists.	
	Fencing shall be inspected weekly and maintained properly, by the Contactor, until construction is complete.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall ensure that signage, which should be pictorial and, in the vernacular, is erected on all boundary fences warning against entering the construction area.	YES			Inspection of assets	Compliant	
	Public awareness programmes shall be developed by the Contractor with the community to identify areas of particular risk and approaches to reduce risk.	YES			Inspection of relevant records or documents	Compliant	



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/Partial	N/A			
	Traffic calming and speed control measures for access to construction sites must be implemented in consultation with the local authorities.	YES			Inspection of assets	Compliant	
Section 7.19	HEALTH RISKS AND TRAFFIC						
Section 7.19 Page 47	During construction all vehicles and construction machinery should be maintained to a standard that minimises pollutants.	YES			Inspection of relevant records or documents	Complaint	
	During operation, Levels of air pollution must be regularly monitored;			N/A		Not Yet Applicable	
Section 7.20	ACCESS REQUIREMENT						
Section 7.20 Page 47	No access/haul roads other than those required for construction purposes shall be developed.	YES			Inspection of assets	Compliant	
	As far as possible, existing roads shall be used for access/haulage purposes	YES			Inspection of assets	Compliant	
	All new temporary access/haul roads as approved by DEA shall also be approved by the Contractor in consultation with the ESO and ECO	YES			Confirmed by Enquiry	Compliant	
	Prior to the construction of new access/haul roads, topsoil shall be stripped and stockpiled as discussed under Section 7.8 above. All temporary roads no longer required shall be decommissioned and the land rehabilitated as described under Section 7.3 above.	YES			Confirmed by Enquiry	Compliant	
Section 7.21	LANDSCAPE AND VISUALS						
Section 7.21 Page 48	The Contractor shall ensure that construction camps are located inconspicuously in the landscape to reduce visual impact severity. This will include placing construction camps in already disturbed landscapes in close proximity to the construction area. In addition, construction camps shall be made of temporary structures that can be moved easily, and will not be placed on ridges, elevated slopes and open landscapes.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall ensure that construction activities are expedited in the construction phase reducing the temporal scale thereby reducing the visual exposure time.	YES			Confirmed by Enquiry	Compliant	
	The Contractor shall place construction camps, stockpiles and associated activities within the construction site or on previously disturbed sites where-ever possible to reduce extensive landscape impacts that can lead to a general depletion of the overall landscape character.	YES			Inspection of assets	Compliant	
	The Contractor shall ensure that construction camp establishment avoids landscape modifications like tree cutting, grading and levelling of the landscape.	YES			Inspection of assets	Compliant	
	The Contractor shall write design and placement guidelines for structures and infrastructure i.e. signage, communication, lighting etc. for approval by the ECO and these must consider the use of appropriate materials; and Massing, i.e. cluster activities where possible;	YES			Inspection of assets	Compliant	
	The Contractor shall ensure the establishment of appropriate setbacks/buffers from adjacent sensitive land uses, especially residential and tourism;	YES			Inspection of assets	Compliant	
	The Contractor with the approval of the Site Manager acting for Amstilite shall ensure that building structure has modest scale, height and form of simple rectangular nature;	YES			Confirmed by Enquiry	Compliant	
	Erosion risks should be assessed and minimised as erosion scarring can create areas of strong contrast which can be seen from long distances;			N/A		No Stormwater Management Method Statement has been made available for the audit.	
	Laydown areas and stockyards should be located in low visibility areas (e.g. valley between the ridges) and existing vegetation should be used to screen them from views;			N/A		Compliant	
	Night lighting of the construction sites should be minimised within requirements of safety and efficiency;			N/A		Compliant	
	Signs near wind turbines should be avoided unless they serve to inform the public about wind turbines and their function. Advertising billboards should be avoided.			N/A		Not Yet Applicable	
	According to the Aviation Act, 1962, Thirteenth Amendment of the Civil Aviation Regulations, 1997: "Wind turbines shall be painted bright white to provide maximum daytime conspicuousness. The colours grey, blue and darker shades of white should be avoided altogether. If such colours are to be used, then wind turbines shall be supplemented with daytime lighting, as required."			N/A		Not Yet Applicable	
	Lighting should be designed to minimise light pollution without compromising safety. Investigate using motion sensitive lights for security lighting. Turbines are to be lit according to Civil Aviation regulations.			N/A		Not Yet Applicable	
	Trees are an effective measure against shadow flicker and if residents are willing, trees can be planted to reduce flickering.			N/A		Not Yet Applicable	
Section 7.22	EMPLOYMENT						



CEMPR REFERENCE	ENVIRONMENTAL REQUIREMENT	COMPLIANCE			AUDIT EVIDENCE	COMMENT	PHOTO RECORD REF NO.
		YES	NO/ Partial	N/A			
Section 7.22 Page 49	Without compromising construction and operation activities and schedules, local labour should be employed as far as possible. Those successful in obtaining employment should be provided with the appropriate skills development and training. This is consistent with Amstilite (RF) Proprietary Limited's current plans.	YES			Confirmed by Enquiry	Labourers are employed from four local towns. All labourers undergo a medical and skill training sessions prior to construction.	
	The facilitation strategy has been developed to provide a framework for the Contractor and Amstilite (RF) Proprietary Limited to effectively facilitate the implementation of the project in a manner that creates opportunities for the intended beneficiaries to be actively involved in the project. The strategy to be adopted should be in line with and guided by the objectives and policies of National Government.	YES			Confirmed by Enquiry	Compliant	
	The social dynamics of the Cookhouse community should be taken into consideration in the formulation of a facilitation strategy. For example, in an area where the traditional authorities are dominant, the strategy should be to influence them to engage other community structures. This should be done in a manner that would assure them that their authority is not eroded yet the rest of the community does not feel marginalized.	YES			Confirmed by Enquiry	Compliant	
	The project should involve all the communities in the vicinity of the project to ensure full participation in the project. The facilitation of employment in the areas should be done in consultation with their Tribal Authorities, Ward Committees, Councillors, Municipalities and other development committees in the area.	YES			Confirmed by Enquiry	Compliant	
	Typically, this approach would involve the following steps:						
	Step One: Appointment of a Co-ordinating Social Facilitator the Co-ordinating Social Facilitator (CSF) will be responsible for all the social components of the project, including the setting up of Project Steering Committees (PSC) the rest of the other structures and systems that will be required for the project. The CSF will manage and monitor the work of the various PSCs and oversee the recruitment, appointment and training of the Community Liaison Officers (CLO).	YES			Confirmed by Enquiry	Compliant: CLO's, and CFS's have been appointed	
	Step Two: Establishment of Project Steering Committees and Labour and Employment Desks: The PSC will essentially be the link between the Project Team and the Local Community. The PSC, together with the CSF and the CLO will be responsible for the development of a labour pool. It is with this labour pool where local labour will be recruited. The PSC through a labour desk will be intricately involved in the recruitment process and will monitor the performance of local labourers.	YES			Confirmed by Enquiry	Compliant	
	Step Three: Appointment of Community Liaison Officers: The CLO will be on the ground and basically do the day-to-day and week-to-week monitoring of labour in conjunction with the site agent and the Contractor. Both the PSC and the CLO will be responsible, answerable and accountable to the CSF.	YES			Confirmed by Enquiry	Compliant	

TOTAL COUNT

202 3 38



3 PHOTOGRAPHIC EVIDENCE

The below section provides evidence for audit criteria in Chapter 2.

3.1 CONSTRUCTION CAMP AND OFFICES



Plate 3-1: Construction site offices in camp.



Plate 3-2: Ablution facilities at site office



Plate 3-3: Machinery and equipment storage area next to camp site (1)



Plate 3-4: Machinery and equipment storage area next to camp site (2)



3.2 TURBINE CONSTRUCTION AREAS



Plate 3-5: Site boundary to turbine construction area. Ablution facilities and signage are visible.



Plate 3-6: Safety signage, firefighting equipment and first aid kits are present at each of the construction sites.



Plate 3-7: Area next to turbine laydown area

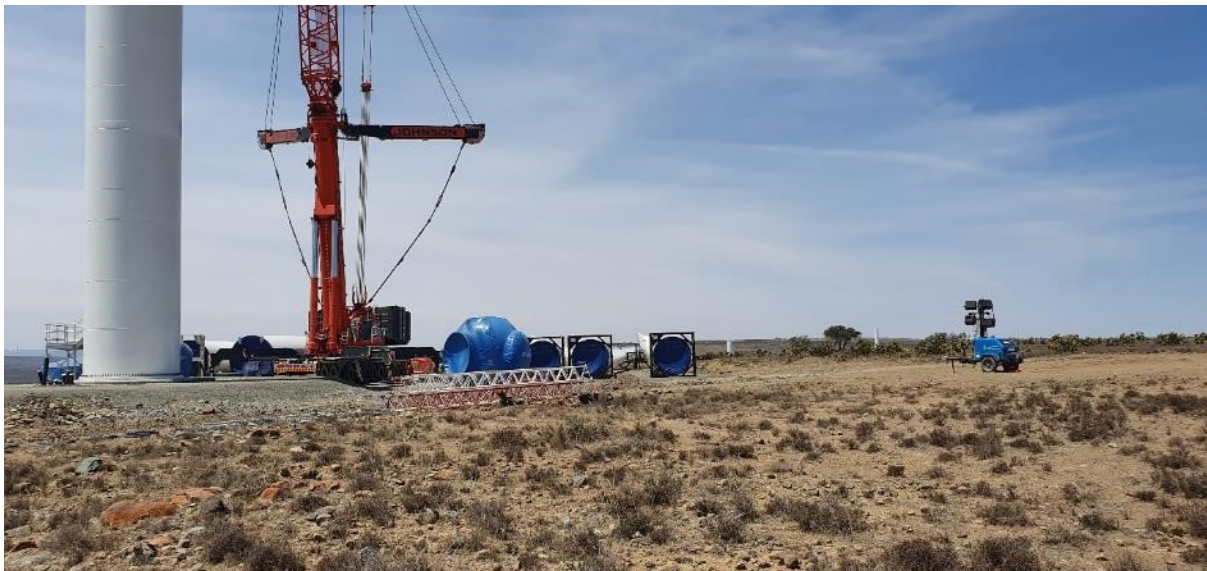


Plate 3-8: View of construction area



Plate 3-9: Worker resting/eating areas are available at each of the construction sites.



Plate 3-10: Toolbox safety talks take place at each of the construction sites before workers may enter.

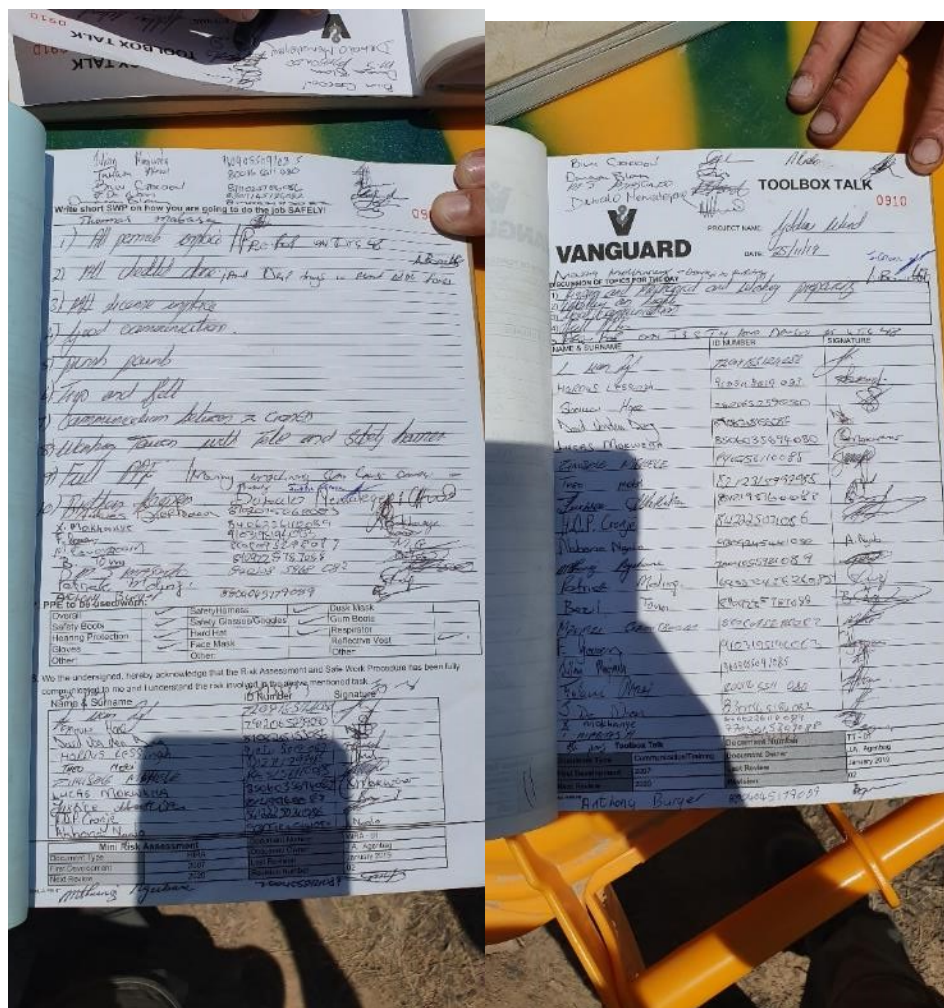


Plate 3-11: Copy of Toolbox talk registers for Vanguard and Concord sub-contractors.



Plate 3-12: Laydown area being prepared for turbine component storage.



3.3 CONSTRUCTION MACHINERY



Plate 3-13: Generator and firefighting equipment



Plate 3-14: Fuel storage container with drip tray placed



Plate 3-15: Construction crane with drip tray



Plate 3-16: turbine foundation after construction.



3.4 ACCESS ROADS AND CABLES



Plate 3-17: Cabling is currently being laid out along the roads edge for underground cabling. Minimal vegetation disturbance taking place.



Plate 3-18: Speed control signs are in place through the project area.



Plate 3-19: Security gate controlling access to the sites



Plate 3-20: Safety warning signs located along access road warning of OHL.



Plate 3-21: Excavation material being loaded onto a truck to be taken to the crusher to prepare G5 material



Plate 3-22: Excavation material being stockpiled for backfilling



3.5 WASTE & HAZARDOUS MATERIAL MANAGEMENT



Plate 3-23: General Waste bin and Oil & fuel spill kits next to site. Firefighting equipment also available.



Plate 3-24: EnviroServ Oil Spill Kit available at each of the construction areas.



Plate 3-25: Two 23,000L fuel storage tanks with additional bunding.



Plate 3-26: Waste Storage area within camp site.



3.6 EROSION CONTROL AND SENSITIVE AREAS

Evidence of compliance: Highly sensitive areas such as heritage sites, rocky outcrops, water ways as well as areas susceptible to erosion.



Plate 3-27: Boundary fencing placed around sensitive sight near to turbine construction area.



Plate 3-28: Temporary netting has recently been destroyed by high winds. Currently being replace with permanent fencing as seen above.



Plate 3-29: A sensitive erosion site was identified and backfilled with sub soil to prevent further erosion from taking place. Requires rehabilitation.



4 CONCLUSIONS AND RECOMMENDATIONS

4.1 NON-COMPLIANCES FROM CURRENT AUDIT

The following summarises any conditions listed Section 2.3 (EA) and Section 2.3 (CEMP) that have not been deemed to be compliant, or have been deemed to be partially compliant at the time of the audit.

4.1.1 Environmental Authorisation

The following table represents the conditions of the Environmental Authorisation that do not fully comply:

EA	Requirement	Comply Yes/No	Comment
65	Construction activities must be restricted to daylight hours in order to negate or reduce visual impacts associated with lighting.	Partial	Construction activities have occasionally taken place earlier than stipulated in the EA in order to cast concrete for turbine foundations. Both surrounding neighbours, as well as the Department of Labour were informed of the activity and provided approval.

Compliant	99	79.2%
Partial Compliance	1	0.8
Not Applicable	25	20.0%
TOTAL	125	

4.1.2 Environmental Management Plan

The following table represents the conditions of the Environmental Management Plan that do not fully comply:

EMP	Requirement	Comply Yes/No	Comment
7.5.2	No littering by construction workers must be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition, and the site is to be kept free of litter.	Partial	Partially compliant. Although the majority of the site was kept waste free, areas were observed with litter scattered around. The ECO did stop the vehicle to collect all visible litter.
7.5.2	During the construction period, the facilities shall be maintained in a neat and tidy condition, and the site is to be kept free of litter.	Partial	
7.13	Construction will be restricted to normal daytime working	Partial	Partially Compliant.



	hours (08:00 – 17:00). No construction activities will take place during weekday evenings and night-time (after 17:00), on Saturdays after midday (12:00) and the entire day on Sundays unless prior arrangement with all landowners have been made.		Construction occasionally takes place outside of these times. This is required for the filling of turbine foundations and for the use of cranes to install turbine components.
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Compliant	202	83.1%
Partial Compliance	3	0.01%
Not Applicable	38	15.6%
TOTAL	243	

4.2 CONCLUSION AND OTHER MATTERS

Based on the findings of this audit and all supplementary evidence, it is evident that the Amstilite (RF) Proprietary Limited is actively making an effort to address all recommendations made during E&S audits from the independent ECO.

During the audit that took place on the 25th November 2019, CES were not made aware of any non-compliance items and only some minor partial compliances that have been presented to the client for correction. It can be concluded that the BioTherm Energy Access Road and Power Line associated with the Terra Wind Energy Golden Valley Wind Energy Facility is currently 99% compliant.



APPENDIX A: LIST OF ENVIRONMENTAL LEGISLATION, REGULATIONS AND BY-LAWS

No.	TITLE	INHERENT RISK RATING
	NATIONAL LEGISLATION (P1&P2)	
1.	Minerals and Petroleum Resources Development Act No 28 of 2002	PI
2.	National Environmental Management: Air Quality Act No 39 of 2004	PI
3.	National Environmental Management: Biodiversity Act No 10 of 2004	PII
4.	National Environmental Management: Integrated Coastal Management Act No 24 of 2008	PII
5.	National Environmental Management: Waste Act No 59 of 2008	PI
6.	National Environmental Management Act No 107 of 1998	PI
7.	National Environmental Management Protected Areas Act No 57 of 2003	PII
8.	National Heritage Resources Act No 25 of 1999	PII
9.	National Water Act No 36 of 1998	PII
ENVIRONMENTAL REGULATIONS (P1&P2)		
1	GNR 326 of 2017-04-07: NEMA: Environmental Impact Assessment Regulations	
2.	GN 1202 of 2009-12-24: National Ambient Air Quality Standards	
3.	GN 893 of 2013-11-22: List of activities which result in Atmospheric Emissions which have or may have a significant detrimental effect on the Environment, Including Health, Social Conditions, Economic Conditions, Ecological Conditions or Cultural Heritage.	
4.	GN 1138 OF 2013-11-29: Controlled Emitters which result in Atmospheric Emissions, which through Ambient Concentrations, Bioaccumulation, and Deposition or in any other way present a threat to Health or the Environment.	
5.	GNR 152 of 2013-04-16: Threatened or Protected Species Regulations	
6.	GN 436 of 2011-07-01: Draft National Norms and Standards for the Storage of Waste.	
7.	GN 921 of 2013-11-29: List of Waste Management Activities that have. Or are likely to have detrimental effect on the Environment.	
8.	GN 925 of 2013-11-29: National Standards for Scrapping or Recovery of Motor Vehicles.	
9.	GN 636 of 2013-08-23: National Norms and Standards for Disposal of Waste to Landfill.	
10.	GNR 634 of 2013-08-23: Waste Classification and Management Regulations.	
11.	GN 467 of 2013-05-10: National Norms and Standards for the Remediation of Contaminated Land and Soil Quality in the Republic of South Africa	
12.	GN 549 of 2014-07-10: Regulations to Phase-out the use of Polychlorinated Biphenyls (PCBs) Materials and Polychlorinated Biphenyl (PCBs) Contaminated Materials	
13.	GNR 1485 of 1999-12-09: World Heritage Conversation Act No 49 of 1999	
14.	GNR 704 of 1999-06-04: Regulations on Use of Water for Mining and Related Activities at the Protection of Water Resources	
15.	GN 399 of 2004-03-26: Revision of General Authorisations in terms of Section 39 of the National Water Act, 1998	
16.	GNR No. 598-09-30: Alien and Invasive Species Regulations	
17.	GN 467 of 2013-05-10: National Norms and Standards for the Remediation of Contaminated Land and Soil Quality in the Republic of South Africa.	
18.	GNR 1485 of 1999-12-09: World Heritage Conversation Act No 49 of 1999	