



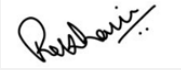
**Verified Carbon
Standard**

VERIFICATION REPORT

LONGYUAN MULILO DE AAR 2 NORTH WIND ENERGY FACILITY



Report ID	EPL-VCS-2024-0026
Project title	Longyuan Mulilo De Aar 2 North Wind Energy Facility
Project ID	1950
Verification period	01-January-2023 to 31-December-2023
Original date of issue	15/05/2024
Most recent date of issue	01/06/2024
Version	2.0
VCS Standard Version	4.7

Client	Longyuan Mulilo De Aar 2 North (RF) (Pty) Ltd
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Summary:

Brief description of the verification and the project:

Verification: Longyuan Mulilo De Aar 2 North (RF) (Pty) Ltd has appointed EcoLance Private Limited (hereafter referred as EPL), to carry out the fourth verification of the VCS project “Longyuan Mulilo De Aar 2 North Wind Energy Facility” in South Africa, VCS ID: 1950, which falls under the sectoral scope 01. The verification is based on the desk review of the Monitoring report /01/, registered VCS PD /12/ and the corresponding validation report /12/, supporting emission reduction calculation spread sheets /02/ and other relevant supporting documents made available to the verification team by the project proponent accompanied by onsite audit and also onsite interviews. This verification involves the period from 01-January-2023 to 31-December-2023 (including both the days).

Project: The project comprises only one activity – a single wind farm with the total installed capacity of 144 MW, which was implemented close to the town of De Aar in the Northern Cape Province of the Republic of South Africa (RSA). 96 numbers of UP86 turbines, supplied by United Power, are employed by the project. The wind farm started commercial operation on 31/10/2017 and continues operating. The project lifetime is 20 years.

The total GHG emission reductions covered in this monitoring report are 490,954 tCO₂e. The project crediting period starts from 31/10/2017 till 30/10/2027, 10 years fixed total period.

The purpose and scope of verification:

Purpose: The purpose of the verification is to review the monitoring results and verify that monitoring methodology was implemented according to monitoring plan and monitoring data, used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive and presented in a concise and transparent manner. In particular, monitoring plan, monitoring report and the project’s compliance with relevant VCS, UNFCCC and host party criteria are verified in order to confirm that the project has been implemented in accordance with previously registered design and conservative assumptions, as documented.

The project activity reduces the CO₂ emission by electricity generated by the project is fed into the electricity grid of the Southern African Power Pool (SAPP), where South Africa is represented by Eskom, displacing energy that would have otherwise be generated by the operation of the grid-connected power plants of the SAPP and by the addition of new generation sources that is reflected in the combined margin CO₂ emission factor of 0.9871 t CO₂/MWh adopted for the electricity system of the SAPP.

The scope of the verification is:

- To verify the project implementation and operation with respect to the registered VCS PD
- To verify the implemented monitoring plan with the registered VCS PD and applied baseline and monitoring methodology.
- To verify that the actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan.

- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement.
- To verify that reported GHG emission data is sufficiently supported by evidence.

The verification shall ensure that the reported emission reductions are complete and accurate in order to be certified.

The method and criteria used for verification.

(a) Desk review, involving:

- (i) Review of the data and information presented to verify their completeness;
- (ii) Review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- (iii) Evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions;

(b) Onsite assessment involving:

- (i) Assessment of the implementation and operation of the proposed VCS project activity as per the registered VCS PD;
- (ii) Review of information flows for generating, aggregating and reporting the monitoring parameters;
- (iii) Interview with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the registered VCS PD;
- (iv) A cross-check between information provided in the monitoring report and data from other sources such as inventories, purchase records, or similar data sources;
- (v) A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the registered VCS PD and the selected methodology;
- (vi) Review of calculations and assumptions made in determining the GHG data and emission reductions;
- (vii) Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

The number of findings raised during verification:

A risk-based approach has been followed to perform this verification. During the course of verification, a total of 06 findings were raised, which includes:

03 Corrective Action Requests (CARs); 03 Clarification Request (CL).

All the raised findings were successfully resolved by the PP.

Any uncertainties associated with the verification:

The VCS MR /01/, emissions reduction calculations /02/ along with the supporting documents provided are considered to be in line with all the VCS requirements /B01/. The verification team has detected no further uncertainties or quality restriction.

Summary of the verification conclusion:

In the opinion of EPL, the emission reductions reported for the “Longyuan Mulilo De Aar 2 North Wind Energy Facility” VCS 1950 in the monitoring report are fairly and correctly stated. EPL is therefore able to certify that the emission reductions from the “Longyuan Mulilo De Aar 2 North Wind Energy Facility” during the period from 01-January-2023 to 31-December-2023, is amount 490,954 tCO₂ equivalent.

Request for issuance of VCU shall be made by the project proponent to an approved VCS Program Registry based on the requirements set out under the most recent version of the VCS Program Guidelines clause on VCS Registration. The verification of reported emission reductions is based on the information made available to EPL and the engagement conditions detailed in this report.

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1 INTRODUCTION

1.1 Objective

EcoLance has been commissioned by the client to perform an independent verification assessment.

The objective of the verification work is to comply with the requirements of Verified Carbon Standards requirements.

This report summarizes the findings of verification of the project, performed on the basis of the VCS Program Guide (v4.4, updated 29 August 2023) /B01-b/, VCS Standard (v4.7, updated 16 April 2024) /B01-a/, Program Definitions (v4.4, updated 29 August 2023) /B01-e/, Registration & Issuance Process (v4.4, updated 31 August 2023) /B01-d/, VCS Validation and Verification Manual (v 3.2, dated 19 October 2016) /B01-c/.

Verification is required for all VCS project activities under the VCS program. This report contains the findings and resolutions from the verification of the project. The purpose of a verification is to have a thorough and independent assessment of the project against the applicable VCS requirements, in particular, the project's baseline, monitoring plan and the project's compliance with relevant VCS and host Party criteria. These are verified in order to confirm that the monitoring report, as documented, is sound and reasonable and meets the identified criteria. Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of emission reductions, VCU's. The monitoring system is implemented and fully functional to generate emission reductions without any double counting, and the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reductions calculation.

1.2 Scope and Criteria

The verification of this project is based on the registered VCS Project Description /12/, the Monitoring Report of this monitoring period /01/, emission reduction calculation spreadsheet /02/, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore, publicly available information was considered as far as available and required.

EPL has employed a risk-based approach in the verification, focusing on the identification of significant risks and reliability of project monitoring and generation of emission reductions.

The verification is carried out on the basis of the following requirements (latest available on VCS website at the time of verification), applicable for this project activity:

- VCS Program Guide version 4.4, updated 29 August 2023
- VCS Standard version 4.7, updated 16 April 2024
- Program Definitions version 4.4, updated 29 August 2023
- Registration & Issuance Process version 4.4 updated 31 August 2023
- VCS validation and verification manual version 3.2, dated 19 October 2016
- CDM Methodology ACM0002 Large-scale Consolidated Methodology: Grid-connected electricity generation from renewable sources, version 19 /B02/
- Other relevant rules, including the host country legislation.

The scope of this verification, by independent checking of objective evidence, is as follows:

- To verify that the project is implemented as described in the project description.
- To assess the project's compliance with other relevant rules including the host country legislation.
- To assess the implementation of the monitoring plan content as mentioned in the registered VCS-PD /12/.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions VCUs without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent, and free of material error or omission by checking the monitoring records and the emissions reduction calculation /02/.
- To evaluate the GHG emissions reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emissions reduction data is free from material misstatement.
- To verify that reported GHG emissions data is sufficiently supported by evidence.
- The verification shall ensure that the reported emission reductions are complete and accurate to be certified.

The method and criteria used for verification consisted of the following phases:

- 1) Completeness check and desk review
- 2) On Site Visit
- 3) Resolution of outstanding issues and issuance of final verification report and applicable VCS Validation and Verification Deeds of Representation.

EPL conducts all its work under strict rules to safeguard impartiality and ensure the independence of the verification team. The verification does not provide any consulting or recommendations for the client. However, stated requests for clarifications and/or corrective actions may provide input for improvement of the monitoring activities.

1.3 Level of Assurance

The verification report is based on the Monitoring report /01/, registered VCS PD and corresponding validation report /12/, supporting documents /03/-/14/ made available to the verifier and information collected through performing interviews.

The verification has been planned and organised to achieve a:

- Reasonable level of assurance
- Limited level of assurance

1.4 Summary Description of the Project

The project comprises only one activity – a single wind farm with the total installed capacity of 144 MW, which was implemented close to the town of De Aar in the Northern Cape Province of the Republic of South Africa (RSA). 96 UP86 turbines, supplied by United Power, are employed by the project.

The EPC contract was signed on 06/02/2015. The wind farm started commercial operation on 31/10/2017 and continues operating. The project lifetime is 20 years.

The total GHG emission reductions covered in this monitoring report are 490,954 tCO₂e.

The project is promoted by Longyuan Mulilo De Aar 2 North (RF) (Pty) Ltd and Blue World Carbon Asset Management (Pty) Ltd is the focal point and project proponent.

Location of the project was verified through Google Map (<https://www.google.co.in/maps>). The emission reductions from the project activity during the period 01/01/2023 to 31/12/2023 (including both days) amount to 490,954 tons of CO₂e.

The assessment team has checked the verification records and interviewed the PPs representatives (telephonically) to verify the project details. Based on the assessment of the documents and remote interviews with PPs representatives, the assessment team is able to confirm that the project activity is fully functional and implemented.

This project adopts the fixed crediting period of 10 years.

The measures to avoid double counting is deemed acceptable to the verification team. Project proponent has also submitted declaration /10//11/ to confirm the following:

- That the project is not creating any other form of environmental credit under any specific program.
- That the project has not or shall not claim carbon credits on any other scheme after Registration of the project under VCS.

2 VERIFICATION PROCESS

2.1 Method and Criteria

The verification consists of the following three phases:

1. Completeness check and desk review of the validation report, monitoring plan, monitoring report, monitoring methodology, VCS PD, applicable tools in particular attention to the frequency of measurements, quality of metering equipment including calibration requirements, QA/QC procedures and other relevant documents.
2. Onsite interviews (including follow-up interviews with project stakeholders, when deemed necessary). The onsite interviews include the following:
 - An assignment of implementation and operation of project activity with respect to validated VCS PD
 - Review of information flows for generating, aggregating, and reporting the monitoring parameters.
 - Interview with relevant personals to determine whether the operational and data collection procedures are implemented and in accordance with the monitoring plan of the validated VCS PD,
 - Cross check of information and data provided in the monitoring report with purchase records or similar data sources.
 - Review of assumptions made in calculating the emission reductions (if any).
 - Implementation of QA/QC procedure in-line with the VCS PD and methodology requirements.
3. Resolution of outstanding issues and the issuance of the final Verification report and as applicable the VCS Verification Deed of Representation

Longyuan Mulilo De Aar 2 North (RF) (Pty) Ltd has appointed the VVB, EcoLance Private Limited to carry out the fourth verification of the project “Longyuan Mulilo De Aar 2 North Wind Energy Facility”, with regards to the relevant requirements of VCS Standard Version 4.7 (updated 16 April 2024) /B01-a/.

The verification through the EPL includes a thorough and independent assessment of the project against the applicable VCS requirements, the project's used methodology ACM0002, version 19, Implementation of project status, Data and Parameters monitored, monitoring plan and the project's compliance with relevant VCS and host party criteria. The verification involves assessment of the project and to confirm that the project meets the applicability conditions of the selected methodology, and assess the claims and compliance made in the MR /01/ without limitation on the information provided by the project participants.

2.2 Document Review

During the document review, EPL has applied standard auditing techniques including but not limited to document reviews and onsite interviews, review of the applicable/applied methodology and its underlying formulae and calculations to assess the quality of information provided.

This report contains the findings and resolutions from the verification and a verification opinion on the project (new inclusion) thus confirming the project design as document is sound and reasonable and meets the stated requirements and identified criteria.

The VCS monitoring report /01/, emission reduction calculation spread sheet /02/, and supporting documents related to the project monitoring report for this verification and net emission reduction/removal were reviewed as per VCS standard version 4.7 /B01-a/ requirements. The desk review included:

- A review of the data and information presented to verify completeness and consistency in accordance with VCS Standard version 4.7 requirements.
- A review of the Monitoring report /01/, data monitored and monitoring methodology, paying particular attention to the applicability conditions of the methodology,
- A review of the monitoring plan and the project’s compliance with relevant VCS criteria.
- An evaluation of data management and the QA/QC system in the context of their influence on the generation and reporting of ERs.

The monitoring report /01/ was initially reviewed, and EPL requested the PP to present the supporting information and documents /03/-/14/. The documents were reviewed by EPL. Through the process of the verification, the revised monitoring report and the supporting documents were evaluated to confirm the actions taken by the PP to the CARs and CLs issued by the verification team.

The list of documents referred during the course of this verification has been provided in Appendix 03.

2.3 Interviews

The table below describes the on-site interview process and further identifies personnel, including their roles, who were interviewed and/or provided information additional to that provided in the monitoring report /01/ and any supporting documents.

No	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	galant	Frank	Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd	09/04/2024	Plant technology and monitoring Plant operation, Stakeholder	Shailendra Kewat / Tariq waggie

					grievance mechanism.	
2	-	Daixioming	Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd	09/04/2024	Monitoring, ER calculations	
3.	-	Shengbin	Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd	09/04/2024		
4.	-	Joost.van.lie	Blue World Carbon Asset Management (Pty) Ltd	09/04/2024		
5	Goryashin	Ilya	Blue World Carbon Asset Management (Pty) Ltd	09/04/2024		
6	Barnard	Lindie	Local stakeholder	08/04/2024		
7	Vento	Wilmia	Local stakeholder	08/04/2024	Grievance procedure, know how about project	

2.4 Site Visits

A site visit to the project activity was undertaken by team leader on 09 April 2024 to assess the implementation and operation of the project activity and to review evidence, and interview key personnel to confirm evidence associated with the data generation, aggregation, and calculation and reporting of the monitoring parameters.

The site visit addressed:

- An assessment of the project implementation and operation as per the registered VCS PD /12/ (including physical inspection to confirm physical existence and operation of project components).
- Review of information flows for generating, aggregating, and reporting the monitoring parameters/data.
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the monitoring plan in the monitoring report /01/.

The verification team carried out site interviews with representatives of PP in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for the VCS.

2.5 Resolution of Findings

This section summarizes the findings from the verification of the project activity. In this section the findings from the document review, assessments and onsite interviews are provided.

Material discrepancies identified in the course of the verification are addressed either as CARs, CLs or FARs.

Corrective action requests (CAR) are issued, where:

- i. Mistakes have been made with a direct influence on project results requiring adjustments of the VCUs monitoring report.
- ii. Applicable methodological specific requirements have not been met.

A Clarification request (CL) may be used where additional information is needed to fully clarify an issue or where the information is not transparent enough to establish whether a requirement is met.

The verification team identified 03 CARs and 03 CL. All CARs and CLs raised by EPL during this verification have been resolved. If this was not completed, the ERs cannot be certified and recommended for issuance to the VCS Registry.

2.5.1 Forward Action Requests

Forward Action Request (FAR) is to be raised when the monitoring and reporting require attention and/or adjustment for the next verification period. FARs does not relate to VCS requirements for issuance of ERs achieved during subject monitoring.

No Forward action request has been raised during validation which are applicable for the current monitoring period.

2.6 Eligibility for Validation Activities

Validation/Verification body (VVB), EcoLance Private Limited holds accreditation for verification for the relevant sectoral scope 01 and is eligible for validation/verification for the project activity.

Please refer to the link below.

<https://verra.org/validation-verification/ecolance-private-limited/>

3 VALIDATION FINDINGS

3.1 Methodology Deviations

N/A

No deviation has been sought from the methodology during current monitoring.

3.2 Project Description Deviations

N/A

There haven't been any change on project's design and characteristics comparing with the registered VCS PD. The project activity follows the scenario described at the Project Design Document and the validation report.

The verification team of EPL assess the methodology application, additionality and the baseline of project activity and find consistency, no deviation and remain in compliance with the VCS rules as per registered VCS PD /12/ and MR /01/.

3.3 New Project Activity Instances in Grouped Projects

The project is not a grouped project activity.

3.4 Baseline Reassessment

Did the project undergo baseline reassessment during the monitoring period?

Yes

No

4 VERIFICATION FINDINGS

4.1 Project Details

Item	Evidence gathering activities, evidence checked, and assessment conclusion:
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Audit history	Audit type	Period	Program	Validation/verification body name	Number of years
	Validation	22-February-2021	VCS	Carbon Check (Pty) Ltd	N/A
	1 st Verification	01-November-2017 -- 31-December-2020	VCS	Carbon Check (India) Pvt. Ltd.	3 years and 2 months
	2 nd Verification	01-January-2021 -- 31-December-2021	VCS	TÜV SÜD South Asia Pvt. Ltd.	1 year
	3 rd Verification	01-January-2022 -- 31-December-2022	VCS	EcoLance Private Limited	1 year
	4 th Verification	01-January-2023 -- 31-December-2023	VCS	EcoLance Private Limited	1 year
	<p>On the basis of reviewing the registered VCS Project Description /12/, the MR of this verification period /01/, VERRA registry, and supporting documents made available to the verifier and information collected through performing interviews during the on-site assessment to confirm the audit history and project’s compliance to the requirement of Rotation of validation/verification bodies as per 4.1.27 of VCS Standard, version 4.7.</p>				
Double counting and participation under other GHG programs	<p>On the basis of reviewing the registered VCS PD /12/ & corresponding validation report /12/, MR /01/, and interviews with the representative of project proponent, each WTG under project is uniquely identifiable and would be assured that it is not part of any other VCS project.</p> <p>Through interviews with PP during onsite assessment, the verification team can confirm that all the project has not participated or been rejected under any other GHG Programs and emission allowance trading program including renewable energy certificates (RECs) since validation. The project has applied only under VCS for registration and the same has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc or non-GHG program like REC, iRECs, etc.</p>				

<p>No double claiming with emissions trading programs or binding emission limits</p>	<p>The project has applied only under VCS for registration. It has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc or non-GHG program like REC, iRECs, etc. So, there would be no double claiming with other emissions trading programs.</p> <p>The Project proponent has also submitted declaration /10/ to confirm that all the project has not or shall not claim carbon credits on any other scheme after Registration of the project under VCS.</p> <p>In addition, the verification team also reviewed the local regulation and confirmed that there is no system that creates binding limits on the total GHG emissions or emissions per unit of output or activity from a site, company, sector, or region of this project activity but does not include emissions trading.</p>
<p>No double claiming with other forms of environmental credit</p>	<p>The project has applied only under VCS for registration. It has been cross verified by the verification team by exploring /checking/visiting other GHG programs like, GS, CDM, GCC etc or non-GHG program like REC, iRECs, etc. So, there would be no double claiming with other forms of environmental credit.</p> <p>The Project proponent has also submitted declaration /10/ to confirm that all the has not or shall not double claiming with any other form of environmental credit under any specific program.</p>
<p>Supply chain (scope 3) emissions double claiming</p>	<p>Not applicable, since project is not involved in emissions footprint of any</p>
<p>Sustainable development contributions</p>	<p>144 MW, which was implemented close to the town of De Aar in the Northern Cape Province of the Republic of South Africa. 96 x UP86-1.5MW turbines, supplied by Guodian United Power, are employed by the project</p> <p>Electricity generated by the project is fed into the electricity grid of the Southern African Power Pool (SAPP), where South Africa is represented by Eskom, displacing energy that would have otherwise be generated by the operation of the grid-connected power plants of the SAPP and by the addition of new generation sources that is reflected in the combined margin CO2 emission factor of 0.9871 t CO2/MWh adopted for the electricity system of the SAPP. By supplying wind-generated electricity to the grid, the project has prevented the release of 490,954 tCO2e into the atmosphere during the reporting period.</p>

During the onsite interview with different stakeholders & plant officials, verification team found that the project activity has contributed to the income increases through money.

As part of regional development efforts associated with the wind project, Longyuan Mulilo De Aar 2 North (RF) (Pty) Ltd has:

3.8.1 Coverage of essential health services

1 mobile health clinic was donated to the Department of Health to screen up to 8,800 learners annually. The total number of services is 17,436 for the current monitoring period which include 4,359 dental, 4,359 optometry screenings, 4,359 primary healthcare screenings, and 4,359 COVID-19 screenings

VVB has verified the records maintained by the PP of the same during the verification site audit.

4.1.1 Proportion of children and young people (a) in grades 2/3; (b) at the end of primary; and (c) at the end of lower secondary achieving at least a minimum proficiency level in (i) reading and (ii) mathematics, by sex

2,272 leaners went through the Math enrichment program in 2023, a further 390 leaners added benefit to in the form of exposure to robotics offerings.

VVB has verified the course curriculum and records of the same during verification site audit.

4.2 The number of children enrolled in early childhood development centers

45 children continued to attend ECD centres in 2023. No new student added.

4.3.1 Participation rate of youth and adults in formal and non-formal education and training in the previous 12 months, by sex

Bursary Programme supported 25 students (including 7 new students) in 2023.

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

2 adults went through SARETEC Training Program

4.b.1 Volume of official development assistance flows for scholarships

Bursary Programme budget was R 4,165,597 in 2023.

VVB has verified the records maintained by the PP of the same during the verification site audit.

6.1.1 Proportion of population using safely managed drinking water services

The water is provided to 3,251 people due to the project during 2023.

VVB has verified the records maintained by the PP of the same during the verification site audit.

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

The project has supplied 497,547 MWh of wind-generated electricity into the grid of South Africa in 2023.

VVB has verified the generation records for the same during the verification site audit.

9.2 Develop quality, reliable, sustainable and resilient infrastructure, including regional and trans-border infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

The project has supplied 497,547 MWh of wind-generated electricity into the grid of South Africa in 2023

13.0 Tonnes of greenhouse gas emissions avoided or removed

The project has prevented the release of 490,954 tCO₂e into the atmosphere during the reporting period.

The project activity is contributing to the SDGs as verified by onsite observation, reviewing of supportive documents include registered VCS PD /12/, MR /01/, ER calculation sheet /02/.

Additional information relevant to the project

On the basis of reviewing registered VCS PD & validation report /12/, MR /01/, the verification team can confirm no sensitive information has been excluded from the public versions of project documents.

4.2 Safeguards and Stakeholder Engagement

4.2.1 Stakeholder Identification

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Stakeholder identification	<p>On the basis of reviewing registered VCS PD /12/ and MR /01/, the verification team found that the stakeholder identification process is in place to distinguish which parties/ entities/ individuals are classified as stakeholders in this project activity.</p> <p>All the stakeholders who can influence or directly/ indirectly affected by the implementation of this project activity have been correctly identified. The verification team has cross-checked with the local stakeholder participant list, consultation meeting records /07/ and finds all the identified stakeholders has been involved by the project activity in the consultation process and therefore accepts this.</p>
Legal or customary tenure/access rights	<p>N/A.</p> <p>The project activity only involves implementation of WTGs. It will not involve any legal or customary tenure/access rights to territories and resources. This has been verified during onsite interview with different stakeholder.</p>
Stakeholder diversity and changes over time	<p>On the basis of reviewing registered VCD PD & validation report/12/, MR /01/, local stakeholder consultation supportive document /07/ and ongoing communication report /08/, onsite observation and interview with different stakeholders, the verification team found insignificant change in stakeholder diversity.</p> <p>There is no change in entities involved in this project activity. Their structure, functionality and activity are still the same. There might be changes in the personnel, but it doesn't impact their opinion & comments for the project activity on behalf of their organization as confirmed onsite.</p>

<p>Expected changes in well-being</p>	<p>The project activity is contributing to the reduction in GHG emission due to implementation of clean energy source WTGs as verified by onsite observation, reviewing of supportive documents include registered VCS PD /12/, MR /01/, ER calculation sheet /02/.</p> <p>Overall, the verification team found the project activity has contributed to the increase of local well-being.</p>
<p>Location of stakeholders</p>	<p>All the stakeholders are operating and living in the area of project activity which is in the geographical boundary of South Africa country. This was verified and confirmed during onsite observation and interview with different stakeholder.</p>
<p>Location of resources</p>	<p>The location of resources (WTGs, etc.) is also in the area of project activity which is in the geographical boundary of South Africa country. This was verified and confirmed during onsite observation and interview with different stakeholder.</p>

4.2.2 Stakeholder Consultation and Ongoing Communication

Item	Evidence gathering activities, evidence checked, and assessment conclusion
<p>Ongoing consultation</p>	<p>On the basis of reviewing the registered VCD PD & validation report /12/, MR /01/, local stakeholder consultation supportive document /07/, ongoing communication report /08/, and interviews with the PP and stakeholders during the audit, it confirms that the project has a stepwise mechanism for the ongoing communication.</p> <p>Stakeholders can submit grievances or complaints using any of the methods made available that they feel comfortable with. A range of submission methods are available given the varying capabilities and access to resources across the diverse stakeholder groups. The submission methods that are available include:</p> <ul style="list-style-type: none"> • office telephone line that is available during office hours: <ul style="list-style-type: none"> o De Aar: 021 300 3487; o Cape Town: 021 685 3240. • email to frank@mulilo.com • formal letter at the following addresses: <ul style="list-style-type: none"> o 20 van der Merwe Street, De Aar, 7000

	<ul style="list-style-type: none"> • in-person to the following personnel; and <ul style="list-style-type: none"> o Beverley Horak (Project Administrator); o Andrew Doughty (SHEQ Manager). • self-identification of external grievances by operational personnel/ representatives; this is encouraged as a pro-active approach to identify potential grievances. <p>The details of ongoing communication activity are mentioned in the MR /01/. The verification team reviewed and verified those during onsite interview and cross-checked with registered VCS PD /12/ & MR /01/ and confirms the procedure and method for engagement.</p>
Date(s) of stakeholder consultation	Not applicable
Communication of monitored results	The monitored results have been properly documented in the Grievance form /08/. It was cross-checked by interviewing with PP onsite.
Consultation records	The verification team confirmed the method for documenting the outcomes of local stakeholders' ongoing consultation and account of all inputs received through reviewing of Grievance form /09/ & onsite interview.
Stakeholder input	There were no grievance during the current monitoring period. This has been verified by reviewing all the form and confirmed this has been reported correctly in the MR /01/.

4.2.3 Free, Prior, and Informed Consent

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Consent	Not applicable
Outcome of FPIC discussion	Not applicable

4.2.4 Grievance Redress Procedure

Item	Evidence gathering activities, evidence checked, and assessment conclusion
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<p>Grievance received and steps taken to resolve the grievance including the outcomes of the resolution</p>	<p>There is no grievance received during this verification period.</p>
<p>Grievance redress procedure</p>	<p>On the basis of onsite interview, reviewing of registered VCS PD /12/, MR /01/ the verification team confirms on the grievance redress procedure and method for documenting, acknowledge, investigate and address the grievance /08/ and account of all grievance received reported in the MR /01/.</p> <p>During onsite visit, the verification team confirms that stakeholders know how to raise and send their grievance, but no grievance was made during this monitoring period.</p> <p>Hence the verification team deemed the grievance redress procedure including the grievance record as appropriate.</p>

4.2.5 Public Comments

Not applicable. No public comments were received for this project activity during this monitoring period.

4.2.6 Risks to Local Stakeholders and the Environment

Item	Evidence gathering activities, evidence checked, and assessment conclusion
<p>Risks to stakeholder participation</p>	<p>Not applicable since stakeholder consultation has been conducted during the validation.</p>
<p>Working conditions</p>	<p>No risk was identified in working condition as verified during onsite visit & interviewed with stakeholder, review of the registered VCS PD /12/ and MR /01/. The PP has employed all their staff in compliance with host country's Labor Law.</p>
<p>Safety of women and girls</p>	<p>No risk was identified in safety of women and girls as verified during onsite visit & interviewed with stakeholder, review of the registered VCS PD /12/ and MR /01/.</p>
<p>Safety of minority and marginalized groups, including children</p>	<p>No risk was identified in safety of minority and marginalized groups, including children as verified during onsite visit & interviewed with stakeholder and review of the registered VCS PD /12/ and MR /01/.</p>

<p>Pollutants (air, noise, discharges to water, generation of waste, release of hazardous materials)</p>	<p>No risk was identified in any additional pollutants in comparison with the baseline scenario.</p> <p>On the basis of review of the registered VCS PD /12/ and MR /01/, onsite observation and interview with local stakeholder, the project activity has a positive impact in this aspect as it helps reduce air pollutants from fossil fuel power plants.</p>
--	---

4.2.7 Respect for Human Rights and Equity

4.2.7.1 Labor and Work

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Discrimination and sexual harassment	<p>On the basis of review of the registered VCS PD /12/ and MR /01/, onsite interview and observation, the verification team found no discrimination and sexual harassment. The PP also have company code of conduct which indicated clearly that they have no tolerance for any discrimination and sexual harassment.</p>
Management experience	<p>On the basis of review of the registered VCS PD /12/ and MR /01/, onsite interview and observation, the verification team confirmed that PP has been involved in similar carbon projects and have experience in developing those. Their management team have more than 7 years' experience in this topic as verified by their project registration.</p>
Gender equity in labor and work	<p>On the basis of review of the registered VCS PD /12/ and MR /01/, onsite interview and observation, the verification team found that PP is continuing to promote gender equality in labor and work.</p> <p>The PP have company code of conduct which indicated clearly that they have no tolerance for any discrimination especially in gender. The company as per its human resource policy ensures fair opportunity and equal pay for equal work done to both men and women.</p>
Human trafficking, forced labor, and child labor	<p>On the basis of the registered VCS PD /12/ and MR /01/, onsite interview and observation, the verification team found no sign of human trafficking, forced labor and child labor. This is also prohibited as per host country's Labor Law and the PP has employed all their staff in compliance with host country's Labor Law as verified by company code of conduct /13/ & interview with PP during onsite visit.</p>

4.2.7.2 Human Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Human rights	<p>On the basis of the registered VCS PD /24/ and MR /01/, onsite interview and observation, the verification team found that project always respects and promotes the human rights in line with applicable international human right. All the stakeholders can voluntarily participate in the project activity. All the information was shared transparently for all stakeholder through local stakeholder consultation /07/ and annual reports/15/.</p> <p>The contractors/ workers who participated in this project activity also need to follow & comply the PP code of conduct /13/ which also have a rule related to this matter.</p>

4.2.7.3 Indigenous Peoples and Cultural Heritage

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Preservation and protection of cultural heritage	<p>On the basis of the registered VCS PD & validation report /12/, MR /01/, onsite interview and observation, the verification team confirmed that the project activity does not have any activity which bring any negative impact to the indigenous peoples and cultural heritage.</p>

4.2.7.4 Property Rights

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Disputes over rights to territories and resources	<p>On the basis of the registered VCS PD & validation report /12/ and MR /01/, onsite interview and observation, the verification team confirmed that the project activity does not have activity which disputes over rights to territories and resources</p>
Respect for property rights	<p>On the basis of the registered VCS PD & validation report /12/ and MR /01/, onsite interview and observation, the verification team confirmed that the project activity does not involve any property right removal/relocation of property rights holders.</p>

4.2.7.5 Benefit Sharing

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Summary of the benefit sharing plan	Not applicable as the project activity does not involve any property right.
Benefit sharing during the monitoring period	Not applicable as the project activity does not involve any property right.

4.2.8 Ecosystem Health

On the basis of reviewing the registered VCS PD & validation report /12/, MR /01/, observation & interview onsite with different stakeholder, the verification team confirmed that the implementation of the project does not impose any severe impacts on the ecological system in the surrounding areas. In contrast, this project activity will help in reducing the GHG emission by implementing the clean energy source. Therefore, it has no impact to ecosystem health, so this section is not applicable.

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Impacts on biodiversity and ecosystems	No risk identified at validation
Soil degradation and soil erosion	No risk identified at validation
Water consumption and stress	No risk identified at validation
Usage of fertilizers	No risk identified at validation.

4.2.8.1 Rare, Threatened, and Endangered species

Item	Evidence gathering activities, evidence checked, and assessment conclusion
Species or habitat	On the basis of reviewing the registered VCS PD & validation report /12/, MR /01/, observation & interview onsite with different stakeholder, the verification team confirmed that the implementation of the project does not have any adversely impact habitats for rare, threatened, or endangered species.

4.2.8.2 Introduction of Species

Not applicable.

On the basis of reviewing the registered VCS PD & validation report /12/, MR /01/, observation & interview onsite with different stakeholders, the verification team confirmed that the implementation of the project does not introduce any species to the ecosystem.

4.2.8.3 Ecosystem conversion

Not applicable.

On the basis of reviewing the registered VCS PD & validation report /12/, MR /01/, observation & interview onsite with different stakeholders, the verification team confirmed that the implementation of the project does not involve any ecosystem conversion.

4.3 Accuracy of Reduction and Removal Calculations

The equations and choices provided in the methodology and all other methodological tools are correctly quoted in the MR /01/. The emission reductions of the project and project activity instance are calculated using the formulae mentioned in the applied methodologies; ACM0002 /B02/. The verification team has reviewed the emission reduction spread sheets (ER sheets) and checked all the formulae and found they are correct and are in accordance with the monitoring plan of the registered PD /12/ and the applied monitoring methodology.

According to applied methodology ACM002 (version 19) /B02/the emissions are calculated as below:

Baseline Emission:

The baseline emissions are calculated as follows:

$$BE_y = EG_{PJ,y} \cdot EF_{grid,CM,y}$$

Where:

BE_y	=	Baseline emissions in year y (tCO2)
$EG_{PJ,y}$	=	Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project in year y (MWh)
$EF_{grid,CM,y}$	=	Combined margin CO2 emission factor for grid connected power generation in year y (tCO2/MWh)

The lowest values between the measured by Eskom and the on-site measured by Tariff Meters are used for the calculations of the baseline emissions:

Month	Month	Year	KWh used to calculate the baseline emissions		
			Total TRFR1 (main) + TRFR2 (main)	Metered by Eskom	Minimum value
January	1	2023	43,111,968	43,057,968	43,057,968.026
February	2	2023	35,362,032	35,355,672	35,355,671.984
March	3	2023	42,876,864	42,887,664	42,876,863.996
April	4	2023	27,333,648	27,380,568	27,333,648.003
May	5	2023	32,368,560	32,348,472	32,348,471.975
June	6	2023	44,656,776	44,653,800	44,653,800.030
July	7	2023	47,298,144	47,255,880	47,255,880.018
August	8	2023	46,029,936	46,028,952	46,028,952.009
September	9	2023	46,002,408	45,964,368	45,964,368.014
October	10	2023	46,692,816	46,711,080	46,692,815.978
November	11	2023	39,239,400	39,238,200	39,238,199.985
December	12	2023	46,574,592	46,568,712	46,568,712.015

Standardized baseline ASB0040-2018 is selected for the project. The value of the combined margin CO₂ emission factor for the project electricity system applicable to wind and solar power generation for the determination of baseline emissions is 0.9871 t CO₂/MWh.

Baseline emissions

Baseline emissions in year y (tCO₂):

Month	Month	Year	Baseline emissions in year y (tCO ₂)
January	1	2023	42,502
February	2	2023	34,899
March	3	2023	42,323
April	4	2023	26,981
May	5	2023	31,931
June	6	2023	44,077
July	7	2023	46,646

Month	Month	Year	Baseline emissions in year y (tCO ₂)
August	8	2023	45,435
September	9	2023	45,371
October	10	2023	46,090
November	11	2023	38,732
December	12	2023	45,967
Total for 2023:			490,954

Leakage Emissions:

As per applied methodology ACM0002, version 19, the leakage emission is zero.

The details of monitoring parameters used for calculation of emission reductions are provided below:

Parameters Determined ex-ante:

Parameter	Unit	Value	Assessment
$EF_{grid,CM,y}$	tCO ₂ /MWh	0.9871	VVB has cross verified the Standardized baseline ASB0040-2018 which was selected for the project. Table 1 of this standardized baseline provides the value of the combined margin CO ₂ emission factor for the project electricity system applicable to wind and solar power generation for the determination of baseline emissions.

The spread sheet submitted by the PP clearly and transparently mentions values of the data parameters used for calculation of emission reductions. The input values have been verified from the reliable and authentic as per applied methodology /B01/. The emission reductions calculated were compared with the ER spread sheet /O2/ and found to be correct. No significant reporting risks have been identified for the data reported.

The details of monitoring parameters used for calculation of emission reductions are provided below:

Monitoring Parameter Requirement	Assessment/ Observation by the VVB
Data / Parameter: (as in monitoring plan of VCS PD):	EG _{PJ,y}
Measuring frequency/Time Interval:	Continuous measurement

Reporting frequency:	Annually																																																				
Reported value:	<p>On-site measurement by electricity meters, yielding the net electricity supplied to the grid of the RSA. There are two main meters installed in the Maanhaarberg IPP Substation on 132kV side. Each meter is accompanied with the check meter.</p> <p>Monthly reports with the records for delivered electricity to Phiri Eskom 132kV Switching Station are submitted by the Eskom to PP.</p> <p>Value monitored:</p> <table border="1"> <thead> <tr> <th>Month</th> <th>Month</th> <th>Year</th> <th>Value</th> </tr> </thead> <tbody> <tr><td>January</td><td>1</td><td>2023</td><td>43,111.968023</td></tr> <tr><td>February</td><td>2</td><td>2023</td><td>35,362.031984</td></tr> <tr><td>March</td><td>3</td><td>2023</td><td>42,876.863996</td></tr> <tr><td>April</td><td>4</td><td>2023</td><td>27,333.648003</td></tr> <tr><td>May</td><td>5</td><td>2023</td><td>32,368.559969</td></tr> <tr><td>June</td><td>6</td><td>2023</td><td>44,656.776028</td></tr> <tr><td>July</td><td>7</td><td>2023</td><td>47,298.144022</td></tr> <tr><td>August</td><td>8</td><td>2023</td><td>46,029.936009</td></tr> <tr><td>September</td><td>9</td><td>2023</td><td>46,002.408010</td></tr> <tr><td>October</td><td>10</td><td>2023</td><td>46,692.815978</td></tr> <tr><td>November</td><td>11</td><td>2023</td><td>39,239.399985</td></tr> <tr><td>December</td><td>12</td><td>2023</td><td>46,574.592013</td></tr> </tbody> </table>	Month	Month	Year	Value	January	1	2023	43,111.968023	February	2	2023	35,362.031984	March	3	2023	42,876.863996	April	4	2023	27,333.648003	May	5	2023	32,368.559969	June	6	2023	44,656.776028	July	7	2023	47,298.144022	August	8	2023	46,029.936009	September	9	2023	46,002.408010	October	10	2023	46,692.815978	November	11	2023	39,239.399985	December	12	2023	46,574.592013
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Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes																																																				

<p>Details of monitoring equipment:</p>	<p>The meter class is 0.2S.</p> <p>Landis+Gyr E650 (or similar) electricity meters shall be used.</p> <p>Serial numbers of currently installed main and check meters are:</p> <table border="1"> <thead> <tr> <th>Tariff Meter</th> <th>Serial Number</th> </tr> </thead> <tbody> <tr> <td>132/33KV TRFR1_(Main)</td> <td>37108384</td> </tr> <tr> <td>132/33KV TRFR1_(Check)</td> <td>37108385</td> </tr> <tr> <td>132/33KV TRFR2_(Main)</td> <td>37108386</td> </tr> <tr> <td>132/33KV TRFR2_(Check)</td> <td>37108387</td> </tr> </tbody> </table> <p>Meters are installed at the on-site substation. There was no replacement of the meters during the monitoring period. Electricity meters are calibrated as per the requirements of the Power Purchase Agreement, clause 12.6.7, when the difference between measurements at the Ndhlovu Eskom Substation and De Aar 2 North IPP Substation is more than 0.5%. Since the difference was less than 0.5%, no calibration was done during current monitoring period, which is in line with the PPA.</p>	Tariff Meter	Serial Number	132/33KV TRFR1_(Main)	37108384	132/33KV TRFR1_(Check)	37108385	132/33KV TRFR2_(Main)	37108386	132/33KV TRFR2_(Check)	37108387
Tariff Meter	Serial Number										
132/33KV TRFR1_(Main)	37108384										
132/33KV TRFR1_(Check)	37108385										
132/33KV TRFR2_(Main)	37108386										
132/33KV TRFR2_(Check)	37108387										
<p>If applicable, has the reported data been cross-checked with other available data?</p>	<p>Yes, the reported data in MR has been compared with monthly generation reports /14/ and the ER sheet /02/.</p>										
<p>How were the values in the monitoring report verified?</p>	<p>There are two main meters installed in De Aar 2 North IPP Substation on 132kV side. Each meter measures the grid electricity export and the import from grid. PP calculates the difference between the measured quantities of the grid electricity export and the import from grid. PP compares and calculates the difference between two measurements. The lowest value has been used for calculations of the baseline emissions. Same has been confirmed by the VVB during the site audit and with the generation report.</p>										
<p>Does the data management (from data generation to emission reduction calculation) ensure correct transfer of data</p>	<p>Yes, the data management ensures correct transfer of data and reporting of emission reductions and all necessary QA/QC processes are in place.</p>										

<p>and reporting of emission reductions and are necessary QA/QC processes in place?</p>	<p>As per the registered monitoring plan, the meters are to be calibrated as per the requirements of the Power Purchase Agreement, clause 12.6.7, when the difference between measurements at the Ndhlovu Eskom Substation and De Aar2 North IPP Substation is more than 0.5%. For the current monitoring period it was less then 0.5% hence, calibration was not done. VVB has cross verified the same during on site visit.</p>
<p>In case only partial data are available because activity levels or non-activity parameters have not been monitored in accordance with the registered monitoring plan, has the most conservative assumption theoretically possible been applied or has a request for deviation been approved?</p>	<p>NA</p>

Verification team confirms that all parameters are used correctly in the calculations, all results are verifiable and transparent, all assumptions are described and based on verifiable evidence and calculations are done in accordance with the pre-defined formulae from registered VCS PD /12/. The total number of emission reductions for the monitoring period 01-January-2023 to 31-December-2023 is 490,954 tCO₂e.

The verification team has checked and confirmed the calculations in the spreadsheet and found to be accurate. The monitoring report is supported by emission reduction spreadsheet. The consistency and formula were verified and found to be accurate.

4.4 Quality of Evidence to Determine GHG Emission Reductions and Removals

EPL verification team was able to confirm that the calculations are based on authentic data and the ER spreadsheet /02/ used to calculate the VCUs calculations and all figures were tracked, checked, and found to be consistent.

The quality of supporting evidence submitted to the VVB for verification is adequate and found to be verifiable. The transfer of carbon rights and other supporting documents related to quality and maintenance were checked by the verification team during the on-site audit to confirm the authenticity of the documents and to check the correctness of the calculation.

When verifying the reported emission reductions, EPL ensured that there was a clear audit trail that contained the evidence and records that validate the stated figures. All source of documents that form the basis for assumptions and other information underlying the GHG data were checked by the verification team.

When assessing the audit trails, EPL also examined:

1. Whether sufficient evidence was available, both in terms of frequency and in covering the full monitoring period
2. The source and nature of the evidence.
3. If comparable information was available from sources other than that used in the monitoring report, EPL cross-checked the monitoring report against the other sources to confirm that the stated figures were correct.

EPL also assessed that the data collection system met the requirements of the monitoring plan as per the applied methodology /B02/.

Proper data management inclusive of data acquisition and aggregation, data management system is being followed for the project activity.

Therefore, Verification Team of EPL hereby confirms that the evidence used to determine the GHG emission reductions are sufficient in quantity and appropriate in quality.

4.5 Non-Permanence Risk Analysis

N/A

There is no requirement for non-permanence risk analysis for this project.

5 VERIFICATION OPINION

5.1 Verification Summary

EcoLance Private Limited, (the VVB) has performed the fourth (4th) emission reduction verification of the registered VCS project activity “Longyuan Mulilo De Aar 2 North Wind Energy Facility” having VCS ID: 1950. The scope of the activities covers the verification and certification of GHG emissions reductions reported in latest monitoring report /01/. And this report summarizes the findings of the verification of the project, performed on the basis of VCS criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project activity involves the implementation of clean energy source of WTGs. The verification process was performed on the basis of all guidance and criteria as provided in VCS Standard version 4.7 /B01-a/, VCS Program Guide version 4.4 /B01-b/, VCS Validation and Verification Manual version 3.2 /B01-c/, ISO14064-3: 2019 and Registration & Issuance Process version 4.4 /B01-d/.

The monitoring system was installed, maintained in a proper manner, while collected monitoring data allowed for the verification of the amount of achieved GHG emission reductions. Through the review and on-visit the verification team confirms that the project activity has resulted in emission reductions of 490,954 tCO₂e during the first monitoring period 01-January-2023 to 31-December-2023 as per MR /01/.

5.2 Verification Conclusion

EcoLance Private Limited as a VVB is able to issue a positive verification opinion expressed in the attached Certification statement. And as the result of verification of the project activity, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. The project complies with the verification criteria for projects and their GHG emissions reductions or removal set out in VCS criteria.

EcoLance Private Limited herewith confirms that the project has achieved emissions reductions in the mentioned reporting period as follows.

Verification period: From 01-January-2023 to 31-December-2023

Verified GHG emission reductions and removals in this verification period is as below:

Verified GHG emission reductions and carbon dioxide removals in the above verification period:

Vintage period	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Reduction VCU (tCO ₂ e)	Removal VCU (tCO ₂ e)	Total VCUs (tCO ₂ e)
2023 (01-January-2023 - 31-December-2023)	490,954	0,000	0,000	490,954	0,000	490,954
Total	490,954	0,000	0,000	490,954	0,000	490,954

5.3 Ex-ante vs Ex-post ERR Comparison

Vintage period	Ex-ante estimated reductions/removals	Achieved reductions/removals	Percent difference	Explanation for the difference
2023 (01-January-2023 – 31-December-2023)	433,929	490,954	13.15%	The achieved emission reductions are 13.15% more than the estimated. This is due to the high wind availability. VVB find the acceptable.
Total	433,929	490,954	13.15%	

APPENDIX 1: COMMERCIALY SENSITIVE INFORMATION

Not applicable.

No commercially sensitive information included in the monitoring report to be excluded in the public version.

<i>Section</i>	<i>Information</i>	<i>Justification</i>	<i>Assessment method and conclusion</i>
N/A	N/A	N/A	N/A

APPENDIX 2: ABBREVIATIONS

BAU	Business As Usual
CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CO₂	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
EPL	EcoLance Private Limited
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
GCC	Global Carbon Council
GHG	Greenhouse gas(es)
GS	Gold Standard
GWh	Giga Watt Hour
ICS	Improved Cooking Stove
IPCC	Intergovernmental Panel on Climate Change
MW	Megawatts
MWh	Mega Watt Hour
OSV	On Site Visit
QC/QA	Quality control/ Quality assurance
SDG	Sustainable Development Goal
REC	Renewable Energy Certificate
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VCS	Verified Carbon Standard
VVB	Validation / Verification Body

APPENDIX 3: REFERENCE DOCUMENTS

Ref	Document
/01/	<ol style="list-style-type: none"> Monitoring report for Grouped Projects for Viet Nam Cookstove Program-Phase 2 (version 01, dated 20-March-2024) Monitoring report (version 02, dated 01-May-2024)
/02/	ER calculation spread sheet correspond to /01/
/03/	Commissioning Certificates of wind power plant
/04/	Technical specification of the WTGs
/05/	Proof of right of VCU's.
/06/	Power Purchase Agreement between PP (Longyuan Mulilo De Aar Wind Power (RF) (Pty) Ltd) and electricity utility (ESKOM Holdings Soc Ltd)
/07/	Local Stakeholder MoM
/08/	Grievance mechanism procedure
/09/	Grievance form and response from PP
/10/	Declaration from the project proponent that the project is not creating any other form of environmental credit under any specific program.
/11/	Declaration from the project proponent that the project has not or shall not claim carbon credits any other scheme after Registration of the project under VCS.
/12/	Registered VCS PD & corresponding validation report.
/13/	HR Manual of Longyuan Mulilo
/14/	Tax invoices and Eskom's monthly reports for cross check of the meter readings <ul style="list-style-type: none"> Eskom Payment Certificates Longyuan Mulilo_Tax Invoices -
/15/	Annual report of Longyuan Mulilo

Background Documents

Ref	Document
/B01/	<p>VCS Requirements</p> <ul style="list-style-type: none"> a. VCS Program Guide version 4.4, updated 29 August 2023 b. VCS Standard version 4.7, updated 16 April 2024 c. Program Definitions version 4.4, updated 29 August 2023 d. Registration & Issuance Process version 4.4 updated 31 August 2023 e. VCS validation and verification manual version 3.2, dated 19 October 2016 f. VCS Verification report template v4.3, dated 29 August 2023
/B02/	Applied baseline and monitoring methodology: ACM0006, version 19
/B03/	Standardized baseline ASB0040-2018
/B04/	<p>Website and links:</p> <ul style="list-style-type: none"> 1. IPCC (http://www.ipcc-nggip.iges.or.jp) 2. http://cdm.unfccc.int 3. http://www.terra.org

APPENDIX 4: CERTIFICATES OF COMPETENCE



Certificate of Appointment

SHAIENDRA KEWAT


The qualification and appointment are done following the requirements of
ECOLANCE PRIVATE LIMITED (EPL/PR/5)

Standard/ Scheme			
<input checked="" type="checkbox"/> VCS	<input type="checkbox"/> CCBS	<input checked="" type="checkbox"/> GS4GG	<input type="checkbox"/> GCC
<input type="checkbox"/> SD Vista	<input type="checkbox"/> Social Carbon	<input type="checkbox"/> Plan Vivo	<input type="checkbox"/> Plastic Standard
<input type="checkbox"/> CerCarbono	<input checked="" type="checkbox"/> ISO 14064-1: 2018		

Role			
<input checked="" type="checkbox"/> Auditor	<input checked="" type="checkbox"/> Team Leader	<input type="checkbox"/> Reviewer	<input checked="" type="checkbox"/> Technical Expert
<input checked="" type="checkbox"/> Financial Expert	<input type="checkbox"/> Trainee	<input checked="" type="checkbox"/> GHG Verifier [Applicable to 14064-1: 2018]	

Sectoral Scopes
<input checked="" type="checkbox"/> Energy Industries (Renewable/Non-Renewable)
<input checked="" type="checkbox"/> Energy Demand
<input checked="" type="checkbox"/> Waste Handling and Disposal
<input type="checkbox"/> Forestry and Other Land Use
<input type="checkbox"/> Agriculture
<input checked="" type="checkbox"/> Livestock and Manure
<input checked="" type="checkbox"/> General [Applicable to 14064-1: 2018]

Certificate No	EPL/Cert/2
Date	15/02/2024
Validity	14/02/2025

Authorized by	Rekha Menon
Designation	Director-Technical
	



Certificate of Appointment

DEBARSHI DAS

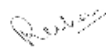
The qualification and appointment are done following the requirements of
ECOLANCE PRIVATE LIMITED (EPL/PR/5)

Standard/ Scheme			
<input checked="" type="checkbox"/> VCS	<input checked="" type="checkbox"/> CCBS	<input checked="" type="checkbox"/> GS4GG	<input checked="" type="checkbox"/> GCC
<input type="checkbox"/> SD Vista	<input type="checkbox"/> Social Carbon	<input type="checkbox"/> Plan Vivo	<input type="checkbox"/> Plastic Standard
<input type="checkbox"/> CerCarbono	<input type="checkbox"/> ISO 14064-1: 2018		

Role			
<input type="checkbox"/> Auditor	<input type="checkbox"/> Team Leader	<input type="checkbox"/> Reviewer	<input checked="" type="checkbox"/> Technical Expert
<input type="checkbox"/> Financial Expert	<input checked="" type="checkbox"/> Trainee	<input type="checkbox"/> GHG Verifier [Applicable to 14064-1: 2018]	

Sectoral Scopes
<input checked="" type="checkbox"/> Energy Industries (Renewable/Non-Renewable)
<input checked="" type="checkbox"/> Energy Demand
<input type="checkbox"/> Waste Handling and Disposal
<input type="checkbox"/> Forestry and Other Land Use
<input type="checkbox"/> Agriculture
<input type="checkbox"/> Livestock and Manure
<input type="checkbox"/> General [Applicable to 14064-1: 2018]

Certificate No	EPL/CER/DB/1
Date	25/03/2024
Validity	24/03/2025

Authorized by	Rekha Menon
Designation	Director-Technical
	



Certificate of Appointment

ESWAR MURTY


The qualification and appointment are done following the requirements of
ECOLANCE PRIVATE LIMITED (EPL/PR/5)

Standard/ Scheme			
<input checked="" type="checkbox"/> VCS	<input checked="" type="checkbox"/> CCBS	<input type="checkbox"/> GS4GG	<input type="checkbox"/> GCC
<input type="checkbox"/> SD Vista	<input checked="" type="checkbox"/> Social Carbon	<input type="checkbox"/> Plan Vivo	<input type="checkbox"/> Plastic Standard
<input type="checkbox"/> CerCarbono	<input checked="" type="checkbox"/> ISO 14064-1: 2018		

Role			
<input checked="" type="checkbox"/> Auditor	<input checked="" type="checkbox"/> Team Leader	<input checked="" type="checkbox"/> Reviewer	<input checked="" type="checkbox"/> Technical Expert
<input checked="" type="checkbox"/> Financial Expert	<input type="checkbox"/> Trainee	<input checked="" type="checkbox"/> GHG Verifier [Applicable to 14064-1: 2018]	

Sectoral Scopes
<input checked="" type="checkbox"/> Energy Industries (Renewable/Non-Renewable)
<input checked="" type="checkbox"/> Energy Demand
<input checked="" type="checkbox"/> Waste Handling and Disposal
<input type="checkbox"/> Forestry and Other Land Use
<input type="checkbox"/> Agriculture
<input checked="" type="checkbox"/> Livestock and Manure
<input checked="" type="checkbox"/> General [Applicable to 14064-1: 2018]

Certificate No	EPL/Cert/1
Date	15/02/2024
Validity	14/02/2025

Authorized by	Rekha Menon
Designation	Director-Technical
	



Tariq Waggie

has fulfilled the requirements of ECOLANCE Private Limited and has been qualified as
Local Expert for

South Africa

Version	DATE OF APPROVAL	VALIDITY
1	05 January 2024	04 January 2025

Authorized Signatory



Rekha Menon
Director- Technical

EPL/FR/5

ECOLANCE PRIVATE LIMITED

Version 1

Issued: 27-10-2021

APPENDIX 5: FINDING LOGS

Table 1. CLs from this verification

Finding	CL 01		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	Following documents are need to be submitted: <ol style="list-style-type: none"> 1. Calibration records 2. Commissioning certificates 3. PPA 4. Scan copy of Grievance register 5. Web link or report for the EF 		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Please find the supporting documents in the “Supporting documents after the DVR” folder. Regarding document 5: EF is fixed for the whole crediting period as reported in the VCS PD. Please refer to section 4.1 of the VCS PD. Source of date is ASB0040-2018, Table 1, page 5 (https://cdm.unfccc.int/methodologies/standard_base/2015/sb131.html)		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	Requested documents received and reviewed by the VVB.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 02		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	<ol style="list-style-type: none"> 1. Reference of VCS standard on cover page is wrong. 2. Contents table has error 		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<ol style="list-style-type: none"> 1. On the cover page, there is a reference of VCS standard that applied during registration 2. The content table was updated. 		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	Revised MR has been received and error is corrected in that.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CL 03		
Classification	<input type="checkbox"/> CAR	<input checked="" type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	PP has to elaborate further the implementing status of the project as VCS standard guidelines. Also, how the downtime is accounted for the ER calculation.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	In the monitoring period there no downtimes. The monitoring report was updated accordingly.		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	Revised MR has been received and found in line.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Table 2. CARs from this verification

Finding	CAR 01		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	PP has to submit the documentary evidence for each SDGs contribution. Also, SDG 4.2 and 4.3 contribution is not clear for the current monitoring period.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<p>Please find the supporting documents in the “Supporting documents after the DVR” folder.</p> <p>SDG 6.1 does not have the current project contribution is a correct statement, no contribution was done in 2023.</p> <p>SDG 4.2 – No new children were enrolled to Kaalvoet Akademie in 2023. 45 children continued to attend ECD center in 2023. 23 children went to grade R.</p> <p>SDG 4.3 - Bursary Programme supported 25 students (including 7 new students) in 2023.</p> <p>Supporting documents are provided.</p> <p>The Monitoring Report was corrected respectively.</p>		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective</i>	On the basis of review of the updated MR, it is clear that PP has reported the correct SDGs contributions and provided the supporting documents for each.		

<i>action and VVB assessments (#2, #3, etc.) shall be added.</i>	
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed

Finding	CAR 02		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	A single line diagram for metering and monitoring plan is missing in the section 4.3.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	Please find single line diagram in the section 4.3, Figure 4.3-1		
VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i>	On the basis of review of the updated MR, it is clear that PP has included the SLD in the MR.		
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> To be checked during the next periodic verification <input type="checkbox"/> Outstanding finding (not closed) <input checked="" type="checkbox"/> The finding is closed		

Finding	CAR 03		
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL	<input type="checkbox"/> FAR
Description of finding (VVB)	Calibration frequency of the energy meters are missing in the section. Moreover, actual generation is higher than the estimated one. PP has to clarify whether this will have any impact on additionality.		
Corrective Action or clarification #1 <i>(PP shall write a detailed and clear corrective action or further information for clarification as per finding)</i>	<p>The monitoring period is from 01/01/2023 to 31/12/2023. The energy meters were initially calibrated on 08/05/2017 and as per the PPA requirements calibration is not required unless difference between measurements at the Ndhlovu Eskom Substation and De Aar 2 North IPP Substation is more than 0.5%. For the current monitoring period it was less than 0.5% hence, calibration was not required. The information on calibration frequency is provided in Section 4.2 of the Monitoring-Report.</p> <p>The project has supplied 497,547 MWh of wind-generated electricity into the grid of South Africa in 2023. Net electricity generation from the on-site meters are 13.15% more than ex-ante estimated quantity of net electricity generation supplied by the wind</p>		

	<p>farm to the grid for the indicated period. This is mostly due to high wind conditions. In total (during 6 years and 2 months) the project has supplied 2,831,440 MWh of wind-generated electricity into the grid of South Africa. It is 4.26% more than ex-ante estimated quantity of net electricity generation (2,710,867 MWh) for the same period. Please refer to section 2.5 of the VCS PD. Sensitivity analysis of the project confirms that the financial indicator does not breach the benchmark even under most optimistic assumptions (+10% Load factor). Thus, fluctuations in power generation will not affect the additionality of the project.</p>
<p>VVB Assessment #1 <i>The assessment shall encompass all open issues in the finding. In case of non-closure, additional corrective action and VVB assessments (#2, #3, etc.) shall be added.</i></p>	<p>The actual generation is higher than the estimated one but it is well within the optimistic sensitivity range.(+10%) for the six years and 2 months. Hence, justification provided by PP is accepted.</p>
<p>Conclusion <i>Tick the appropriate checkbox</i></p>	<p><input type="checkbox"/> To be checked during the next periodic verification</p> <p><input type="checkbox"/> Outstanding finding (not closed)</p> <p><input checked="" type="checkbox"/> The finding is closed</p>