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GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG)
REPORT
-
VERIFICATION

Project Title:	9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd.
Monitoring Period:	2107/1001/2018 to 3107/1209/20201 (inclusive of both days)
GS project ID:	GS 7589
Internal ID:	24421
Customer:	Rohit Surfactants Pvt. Ltd.
Date:	2924/098/2022
Revision:	032

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SUMMARY			
Reference No.	**Date** *(first version)*	**Version No.**	**Date** *(last version)*
A_SYS_TQC_GS 7589	01/04/2022	03~~2~~	29~~4~~/09~~8~~/2022
GS4GG Verification			
GS4GG Certified Product *(sought)*:	GHG Emission Reductions		
GS4GG SDG Impact Statement *(sought)*:	Impact Certification		
General Information			
Client	EKI Energy Services Limited		
Project Title	9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd.		
Project Participants	Rohit Surfactants Pvt. Ltd.		
Project Location	Jamvadi & Navagam & Kalavad, Jamnagar, in the state of Gujarat, India		
Contact Person	Mr. Sushil Bajpai		
Monitoring Period	21~~07~~/10~~01~~/2018 to 31/12/2020~~07/09/2021~~ (Inclusive of both days)		
GS4GG Version: GS4GG Principles and Requirements 1.2 GS4GG Activity Requirements: RE Activity Requirements v 1.4 Applied Methodology Version: AMS-I.D. "Grid connected renewable electricity generation", Version 18.0 Current Methodology Version: AMS-I.D. "Grid connected renewable electricity generation", Version 18.0		GS4GG Sectoral Scope: 2 UNFCCC CDM Sectoral Scope: 1 Technical Area: 1.2	
Published Monitoring Report Version: 01 Date: 08/10/2021		Final Monitoring Report Version: 04~~3~~ Date: 28~~23~~/09~~8~~/2022	
Project Design Document Version: 03 Date: 23/08/2022 GS Passport Version (if applicable): NA			
Estimated SDG Goals: SDG 7 (Affordable and clean energy): 17,877 MWh/annum SDG 8 (Decent work and economic growth): Employment for 10 no. of people per year and 01 nos. of training per year SDG 13 (Climate action): 16,491 tCO_2e/annum			
Actual SDG Goals achieved during current monitoring period: SDG 7 (Affordable and clean energy): 30,303.88~~43,385.26~~ MWh SDG 8 (Decent work and economic growth): Employment for 16 no. of people and 05~~6~~ nos. of training provided SDG 13 (Climate action): 27,955~~40,022~~ tCO_2e			
Selected Sustainable Development Goals (SDGs): 7, 8 and 13			
Verification Summary			
LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by EKI Energy Services Limited to perform the 1st periodical verification of "9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd." (Ref. No. GS 7589) applying the methodology AMS-I.D., Version 18.0. The management of Rohit Surfactants Pvt. Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.			

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A desk review and an onsite visit have been conducted to verify the data submitted in the monitoring report. Applus+ Certification confirms the following have been reviewed:

a. The GS4GG PDD V02 including the monitoring plan;
b. Monitoring report(s);
c. The applied monitoring methodology;
d. Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board;
e. The Gold Standard for Global Goals "Principles and Requirements" Version 1.2 and GS4GG guideline and related Annex.
f. All information and references relevant to the project activity's resulting in emission reductions.

Rohit Surfactants Pvt. Ltd. has implemented a Greenfield small-scale grid connected wind power project titled **"9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd."** (Project activity) in the state of Gujarat, India. The project activity involves installation and operation of 12 WTGs of individual capacity 800 kW, sourced from ENERCON India Ltd.

Electricity generated from the project activity is exported to the Indian electricity grid. As per GS4GG PDD V02, the gross electricity generation from the project activity is estimated as 17,877 MWh/year and abates 16,491 tonnes of Carbon Dioxide emissions during its entire crediting period (07/01/2018 to 07/09/2021).

Applus+ Certification confirms that the project is implemented in accordance with the validated and registered PDD V02. The monitoring plan complies with the applied methodology AMS-1.D Version 18.0 /13/ and the Gold Standard for Global Goals "Principles and Requirements" Ver.1.2 /15/, the monitoring has been carried out in accordance with the monitoring plan. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information reviewed and evaluated Applus+ Certification confirms that the implementation of the project has resulted in 27,955~~40,022~~ tCO_2e emission reductions during period 21~~07~~/10~~01~~/2018 to 31/12/2020~~07/09/2021~~ (Both days included).

ASSESSMENT TEAM		
Team Members	**Type of Resource**[1]	**Organization** *(for OEs)*
Lead Auditor: Mr. Pankaj Kumar	☐IR ☐EI ☒OE	M/s True Quality Certifications Private Limited
Technical Expert: Mr. Pankaj Kumar	☐IR ☐EI ☒OE	M/s True Quality Certifications Private Limited
Technical Reviewer: Mr. Simon Shen	☐IR ☒EI ☐OE	-

Note: *in line with the GS Rule Update RU 2020 PR – PR V1.2 dated on 02/04/2020, the VVB hereby discloses that the VVB has performed both Validation and verification of this project as this project is combined validation and verification .*

[1] IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

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ABBREVIATIONS	
ACM	Approved Consolidated Methodology
AM	Approved Methodology
AMS	Approved Methodology Small Scale
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CL/CR	Clarification Request
CM	Combined Margin
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
GUVNL	Gujarat Urja Vikas Nigam Limited
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
MR	Monitoring Report
NGO	Non-Governmental Organization
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
OM	Operational Margin
PDD	Project Design Document
PP	Project Participant
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

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Appendix:

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1. INTRODUCTION

1.1 Objective

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by EKI Energy Services Ltd. to perform the 1st periodical verification of "9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd." applying the methodology AMS-I.D., Version 18.0 and GS4GG guidelines. Gold Standard projects must undergo periodic audits and verification of emission reductions as the basis for issuance of Gold Standard CERs.

The objective of the verification work is to assess the compliance with the requirements of paragraph 62 of the CDM Modalities and Procedures as well as the GS4GG guidelines and relevant Principles and Requirements. According to this assessment Applus+ Certification shall:

- Ensure that the project activity has been implemented and operated as per the registered PDD and transitional documents for registration and that all physical features (technology, project equipment, monitoring and metering equipment) of the project are in place;
- Ensure that the published MR and other supporting documents provided are complete, verifiable and in accordance with applicable CDM VVS for project activities version 03 for the project activity and Gold Standard i.e. and GS4GG requirements;
- Ensure that the actual monitoring systems and procedures comply with the monitoring systems and procedures described in the monitoring plan and the approved methodology;
- Evaluate the data recorded and stored as per the AMS-I.D. Version 18.0.

1.2 Scope

The verification scope encompasses an independent and objective review and ex-post determination of the monitored reductions in GHG emissions by the VVB. The verification is based on the submitted monitoring report, the registered PDD V02 as well as its validation report, the applied monitoring methodology, relevant decisions, clarifications and guidance from the CMP and the EB, GS4GG guideline and any other information and references relevant to the project activity's resulting emission reductions. These documents are reviewed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures, GS4GG guideline and relevant Principles and Requirements, as well as their related rules and guidance.

Based on the requirements in the CDM VVS for project activities version 03 for the project activity as well as the GS4GG guideline, Applus+ Certification has applied a rule-based approach for the verification of the project. The principles of accuracy, completeness, relevance, reliability and credibility were combined with a conservative approach to establish a traceable and transparent verification opinion.

The verification considers both quantitative and qualitative information on emission reductions. The verification also considers the monitoring of sustainable parameters.

The verification is not meant to provide any consultancy towards the client. However, stated requests for clarifications, corrective and/or forward actions may provide input for improvement of the monitoring activities.

1.3 Description of the project activity

Rohit Surfactants Pvt. Ltd. has implemented a Greenfield small-scale project titled "9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd." (Project activity). The project involves installation and operation of 12 WTGs of 800 kW each in the villages Jamvadi and Navagam in taluka Kalavad in the district of Jamnagar of Gujarat (India).

The electricity generated from the project activity is exported to the regional Grid. As per GS4GG PDD V02, the gross electricity generation from the project activity is estimated as 16,491 MWh/year and abates 65,967 tonnes of Carbon Dioxide emissions during its entire crediting period (07/01/2018 to 07/09/2021). The project has obtained requisite clearances and has already been commissioned and was confirmed during onsite visit.

Technical Description:

The total installed capacity of the project is 9.6 MW, which involves operation of 12 WTGs of 800 KW each in the district Jamnagar, state of Gujarat, India. The WTGs used in the project activity are ENERCON make (800 kW capacity). The technical features of the equipment have been verified by the assessment team during physical audit by checking the nameplate of Wind turbines and also cross checked with manufacturers technical manual.

Assessment team also checked the relevant dates i.e. Commissioning dates for the project activity and found the same to be appropriate.

Sr No	Village	Taluka & District	WTG Id Commissioning	Latitude (N) (D° M' Sec")	Longitude (E) (D° M' Sec")
1	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0927	N22^0 7' 13.2"	E70^0 18' 39.3"
2	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0928	N22^0 7' 19.5"	E70^0 18' 39.5"
3	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0929	N22^0 7' 25.8"	E70^0 18' 36.1"
4	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0930	N22^0 7' 32.3"	E70^0 18' 36.2"
5	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0931	N22^0 08' 12.1"	E70^0 18' 20.2"
6	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0932	N22^0 08' 18.1"	E70^0 18' 18.4"

7	Jamvadi	Kalavad, Jamnagar	EIL/800/07-08/0933	N22^0 08′ 25.2″	E70^0 18′ 16.1″
8	Navagam	Kalavad, Jamnagar	EIL/800/07-08/01029	N22^0 03′ 27.6″	E70^0 16′ 53.9″
9	Navagam	Kalavad, Jamnagar	EIL/800/07-08/01030	N22^0 53′ 19.2″	E70^0 16′ 54.0″
10	Navagam	Kalavad, Jamnagar	EIL/800/07-08/01031	N22^0 03′ 14.4″	E70^0 17′ 01.8″
11	Navagam	Kalavad, Jamnagar	EIL/800/07-08/01032	N22^0 03′ 08.4	E70^0 17′ 03.9″
12	Navagam	Kalavad, Jamnagar	EIL/800/07-08/01033	N22^0 03′ 02.4	E70^0 17′ 06.3″

2. METHODOLOGY

Applus+ Certification approach to verification is a two-stage process. In the 1st stage, Applus+ Certification completed a strategic review and risk assessment of the project's activities and processes in order to gain a full understanding of:

- Activities associated with all the sources contributing to the project emissions and emission reductions, including leakage if relevant;
- Protocols used to estimate or measure GHG emissions from these sources;
- Collection and handling of data;
- Controls on the collection and handling of data;
- Means of verifying reported data; and
- Compilation of the monitoring report.

Applus+ Certification used a periodical Verification Checklist which, based on the risk-based assessment of the parameters and data collection and handling processes for each of those parameters, describes the verification approach and the sampling plan.

In the 2nd stage, using the Verification Checklist, Applus+ Certification verified the implementation of the monitoring plan and the data presented in the Monitoring Report for the period in question. This involved interviewing a PP representative during the physical audit and a desk review of the Monitoring Report. This Verification Report describes the findings of this assessment.

2.1 Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or national business environment, LGAI Technological Center, S.A. (Applus+ Certification) has composed a project assessment team in accordance with the appointment rules in the internal Quality Management System of LGAI Technological Center, S.A. (Applus+ Certification).

The composition of the audit team shall be approved by the LGAI Technological Center, S.A. (Applus+ Certification) ensuring that the required skills are covered by the team.

The four qualification levels for team members that are assigned by formal appointment rules are as presented below:

- Lead Auditor (LA)
- Auditor (A) / Auditor in Training (AiT)
- Technical Expert (TE)
- Technical Reviewer (TR)

The sectoral scope/technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Pankaj Kumar	LA/TE	YES	YES	NA	YES
Mr. Simon Shen	TR	YES	YES	NA	NA

The complete list of CVs is included as Appendix 3 of this report.

2.2 Document review

The Monitoring Report version 01 was submitted to DOE before the verification activities started. The MR was assessed based on all the relevant documents. The aim of the assessment in the desk review was to:

- Verify the completeness of the data and the information presented in the MR;

- Check the compliance of the MR with respect to the monitoring plan depicted in the registered PDD and verify that the applied methodology was carried out. Particular attention to the frequency of measurements, the quality of the metering equipment including calibration requirements, and the quality assurance and quality control procedures of the power plant was checked by the assessment team.

- Evaluate the data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

- Please check section 4 of this report for details of the documents checked.

-

2.3 On site assessment and follow up interviews

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Duration of on-site inspection: 21/10/2021 to 22/10/2021				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	1) an assessment of the implementation and operation of the GS4GG project activity as per the registered PDD 2) a review of information flows for generating, aggregating and reporting of the monitoring parameters 3) interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the Monitoring Plan 4) a cross-check between information provided in the MR and data from other sources 5) a check of the monitoring equipment including calibration performance, and observations of monitoring practices against the requirements of the PDD and the applied methodology 6) a review of calculations and assumptions made in determining the GHG data and ERs, and 7) an identification of QA/QC procedures in place to prevent, or identify and correct, any errors or omissions in the reported monitoring parameters	Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India	21/10/2021 – 22/10/2021	Mr. Pankaj Kumar

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As referred above, the objective of the site visit assessment was to verify the following issues:

- Confirm the implementation and operation of the project in line with GS4GG PDD:

The project activity is implemented with the capacity of 9.65 MW and same has been checked during the onsite visit and there is no change in capacity or design of the project activity since commissioning. Same was confirmed from commissioning certificates, technical specifications of water turbines & recent site photographs, PPA, interviews with PP/Site in charge and JMR as well as invoices raised by PP towards state utility;

- Review the data flow for generating, aggregating and reporting the monitoring parameters:

JMR procedures are followed at the project site in line with the state utility practice and are in line with the registered PDD. JMR procedure is confirmed during the interviews with PP and assessment team also checked entire monthly JMRs issued by the state utility for the project activity with the values provided in the ER sheet for the calculations of the emission reductions;

- Confirm the correct implementation of procedures for operations and data collection:

During interviews with PP it was confirmed that implementation of procedures for operations and data collection is in line with registered PDD. Service provider is responsible for the operations, maintenance as well as maintaining other technical data of the project activity. Performance and operation data of hydro power plant is controlled and maintained by the PP through dedicated software;

- Cross-check the information provided in the MR documentation with other sources:

The information provided in the MR was crosschecked with the commissioning certificates, PPA, calibration certificates and JMRs are issued by Statutory authority and invoices are used for cross-checking;

- Check the monitoring equipment against the requirements of the PDD and the approved methodology, including calibrations, maintenance, etc.:

Monitoring meters are checked with the JMR details, interviews with PP, current photographs/videos submitted by PP and calibration is checked with the calibration certificates issued by State Utility authorized third parties;

- Review the calculations and assumptions used to obtain the GHG data and ER:

Calculation procedures and monthly generation data is checked with JMR and crosschecked with invoices;

- Identify if the quality control and quality assurance procedures are in place to prevent or correct errors or omissions in the reported parameters:

During interviews with PP it was confirmed that quality control and quality assurance procedures are in place. Metering arrangements & JMR procedure is defined and controlled by state utility and PP do not have control on it. Assessment team checked all the monthly JMR values as well as crosschecked with the invoices and found that emission reductions are calculated conservatively.

Thus, to verify the implementation of project activity, onsite operation & maintenance, monitoring & management practices; assessment team has conducted interviews with onsite in-charge, O&M team and also had a detail discussion with the PP representative – Mr. S.K. Bajpai and reviewed third party statutory documents i.e. Commissioning certificates, Power Purchase Agreement, Complete set of JMRs covering monitoring period, Invoice (for cross check of Net electricity

supplied to the grid), training records, breakdown log, O&M schedule, complaint/feedback register and other relevant records.

- Local stakeholder meeting details:

Name of the stakeholder	Mr. Hasmukh bhai Patel
Occupation	Villager
VVB QUESTION: Did PP provided employment opportunity to locals? Answer: Yes, employment is generated and the locals are given priority. Assessment team noted that locals were employed for the project activity for the current monitoring period. VVB also like to conclude that during the site visit it was observed that local people were employed for security and operation related work like vegetation improvement and other unskilled work. VVB also found that skilled local persons were also employed by the organization for the operation and maintenance of the power plant.	

2.4 Quality of evidences

Sufficient evidence covering the full verification period in the required frequency is available to verify the figures stated in the final MR Version 0~~1~~3. Specific cross-checks have been done in cases where further sources were available. The monitoring report's figures were checked by the assessment team against the raw data. The data collection system meets the requirements of the monitoring plan as per the methodology.

2.5 Reporting of findings

As an outcome of the verification process, the assessment team can raise different types of findings.

Where a non-conformance arises, the assessment team shall raise a Corrective Action Request (CAR). A CAR is issued, where:

- Non-compliance with the monitoring plan or methodology are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

The assessment team shall raise a Clarification Request (CR) if information is insufficient or not clear enough to determine whether the applicable CDM/GS requirements have been met.

All CARs and CRs raised during verification shall be resolved prior to submitting a request for issuance.

Forward Action Requests (FARs) may be raised during verification for actions where the monitoring and reporting require attention and/or adjustment for the next verification period.

Please refer to Appendix 1 of this report. Total Numbers of CARs: CAR: 01, CL: 04, FARs: 00

2.6 Internal Quality Control

As a final step of verification, the final documentation including the verification report has to undergo an internal quality control by the Technical Reviewer. Each report has to be finally approved either by the DOE's Technical Manager or the Deputy. This approval process also includes another quality assurance check in terms of Administrative Review. In case one of these two persons is part of the assessment team, the final approval can only be given by the person who is not a part of the assessment team. If the documents have been satisfactorily approved, the Request for Issuance is submitted to the GS Registry along with the relevant documents.

3. VERIFICATION FINDINGS

3.1 FARs from Validation / Previous Verification

No FARs were envisaged from previous Validation of this project. This is the 1st periodic verification for the project activity.

3.2 Project Implementation in accordance with the registered Project Design Document

The project activity was fully implemented according to the description presented in the registered PDD. The assessment team confirms, through the visual inspection, that all physical features of the proposed project activity including data collecting systems and storage have been implemented in accordance with the validated PDD.

The project activity was in normal operation during the monitoring period and the same has been confirmed during the physical audit. No unusual activities were observed during the monitoring period and the plant was undergoing scheduled maintenance as per the recommendation of the manufacturers. No forced breakdown is observed and the same is confirmed by the assessment team with the plant log details.

Project Participants	Rohit Surfactants Pvt. Ltd.
Title of project activity	9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd.

GS Registration No.	GS 7589
GS Version applied	The project has been submitted to GS4GG as per the guidelines of the Gold Standard for Global Goals "Principles & Requirements" Version 1.2. Hence the current verification of the project activity has followed the GS4GG version of the Gold Standard.
Baseline and monitoring methodology	AMS-I.D. Version 18.0 - Grid connected renewable electricity generation
Project type	The purpose of the project activity is to generate electricity using wind power technology. It is a 9.6 MW small-scale grid connected wind energy power project.
Project scale	Small
Location of the project activity	Village Jamvadi & Navagam, Taluka Kalavad, District Jamnagar, state of Gujarat, India.
Project's crediting period	07/01/2018[2] to 07/09/2021
Total duration of the project	3 years and 8 months
Period verified in this verification	21~~07~~/10~~01~~/2018[3] to 31/12/2020 (Inclusive of both days)

Based on an interview with a PP representative, the verification team was able to confirm that the project implementation is in accordance with the project description contained in the GS PDD (version 03, dated 23/08/2022/10/)

The project activity is a 9.6 MW small-scale grid connected Wind Energy project in district Jamnagar of Gujarat state, India. The geo-coordinates of WTGs have been provided below in the table and the same was confirmed by referring to the website Google maps/06/ and found to be correct.

Sr No	Village	Taluka & District	Latitude (N) (D° M' Sec")	Longitude (E) (D° M' Sec")
1	Jamvadi	Kalavad, Jamnagar	N22^0 7' 13.2"	E70^0 18' 39.3"
2	Jamvadi	Kalavad, Jamnagar	N22^0 7' 19.5"	E70^0 18' 39.5"
3	Jamvadi	Kalavad, Jamnagar	N22^0 7' 25.8"	E70^0 18' 36.1"
4	Jamvadi	Kalavad, Jamnagar	N22^0 7' 32.3"	E70^0 18' 36.2"
5	Jamvadi	Kalavad, Jamnagar	N22^0 08' 12.1"	E70^0 18' 20.2"

[2] As per GHG Emissions Reduction & Sequestration Product Requirements (v2.0) para 10.2.3 the start date of the crediting period with Gold Standard shall be the start date of the crediting period under CDM or maximum of two years prior to the date of first submission i.e., 07/01/2020 (submission for preliminary review). Therefore, the start date for CP will be 07/01/2018 under GS4GG

[3] According to to the VVB site visit requirement, the monitoring period start date cannot be earlier to 3 years from the VVB onsite visit which was conducted on 21/10/2021.

Formatted: English (India)

6	Jamvadi	Kalavad, Jamnagar	N22^0 08′ 18.1″	E70^0 18′ 18.4″
7	Jamvadi	Kalavad, Jamnagar	N22^0 08′ 25.2″	E70^0 18′ 16.1″
8	Navagam	Kalavad, Jamnagar	N22^0 03′ 27.6″	E70^0 16′ 53.9″
9	Navagam	Kalavad, Jamnagar	N22^0 53′ 19.2″	E70^0 16′ 54.0″
10	Navagam	Kalavad, Jamnagar	N22^0 03′ 14.4″	E70^0 17′ 01.8″
11	Navagam	Kalavad, Jamnagar	N22^0 03′ 08.4	E70^0 17′ 03.9″
12	Navagam	Kalavad, Jamnagar	N22^0 03′ 02.4	E70^0 17′ 06.3″

The project activity (part of the project site) involves generation of electrical energy derived from wind energy. The baseline scenario identified is the import of electricity from the grid.

Project activity involves installation and operation of 12 WTGs with a capacity of 800 kW in the villages Jamvadi and Navagam in taluka Kalavad in the district of Jamnagar in the state of Gujarat, India. The cumulative capacity of the project activity is 9.6 MW.

The project has obtained the requisite clearances and has already been commissioned as verified from the review of relevant documents /17/ and operating successfully /18/.

Project equipment and the technology are employed as mentioned in the registered PDD /10/.

The technical details of the project activity as confirmed during the physical on site interview explained in sec. 1.3 above.

The operation of the project activity complies with all statutory requirements as the PP is submitting the monthly invoice to government authorities.

The monitoring data is recorded on a continuous basis and available on an hourly/daily basis as ERP and MIS reports /18/ and stored at the plant site.

Training has been provided to the operators on the technology and the monitoring of the plant operation, and the emergency and safety procedures. The company has recruited personnel with relevant experience in the operation of the plant.

There is no event or situation including emergency situations that occurred during this monitoring period which has impacted the applicability of methodology/13/. The outage record or breakdown report/07/ for this monitoring period was discussed during the physical audit and verified from logbooks shared by PP and found OK.

The timeline of the project's implementation is as follows:

Milestone of the project activity	**Timeline**	**Assessment by the verification team**
Registration of the project activity under GS4GG Principles and Requirements version 1.2	27/06/2022	The end date of the review period "6 week registration review period under GS4GG version 1.2" i.e. 27/06/2022 has been considered as the registration date of the project activity and has been verified by the verification team from the review document

Crediting period		
1st Monitoring period	2107/1001/2018 to 31/12/2020	Verification team has verified the same from the registered documents. Also, this monitoring period is within the first crediting period.

Assessment of actual emission reductions with the estimated emission reductions in PDD:

Estimated Emission Reduction as per registered PDD	36,28016,491 tCO_2e As per PDD V03, ER for 365 days – 16,491 tCO_2e and for this MP, total days are 8031090. Accordingly, emission reduction for this MP, estimated ER, is 36,28049,249 tCO_2e. Plz refer calculation in ER Spreadsheet
Actual Emission Reduction for the monitoring period	27,95540,022 tCO_2e
Has any increase in VERs occurred?	No
Reason for increase of VERs	NA

In summary, the verification team confirms that actual emission reduction is lower than the estimate of the registered for the current monitoring period.

The Verification team considers the project and monitoring description of the project contained in the Monitoring report to be complete and accurate. The Monitoring report complies with the relevant methodology, tools, forms and guidance which are in line with that available in the registered documents (including PDD) with the Gold Standard.

Opinion:

a) In opinion of the assessment team the implementation and operation of the project activity is in compliance with the description in the PDD V02.

b) There is no revision in the monitoring plan or post registration change for the current monitoring period.

c) The actual emission reductions for the current monitoring period are 27,95540,022 tCO_2e which are lower than the estimated ERs (36,28049,249 tCO_2e) for the comparable period.

3.3 Compliance of the Monitoring Plan with the Monitoring Methodology

The DOE verification team is able to confirm that the monitoring plan contained in the PDD (version 02.0, dated 15/03/2022) is in accordance with the approved methodology applied by the project activity — AMS-I.D. Version 18.0 /13/ Consolidated baseline methodology for grid-connected electricity generation from renewable sources.

The monitoring plan and the monitoring system implemented are in compliance with the applied monitoring methodology AMS-I.D. Version 18.0. All other requirements of the applied methodology are met. Furthermore, it can be confirmed that the ex-ante value for grid emission factor (EF) sourced from the CEA database in the registered PDD has been correctly applied in the calculation of emission reductions. The DOE verification team confirms that the monitoring plan of the CDM project activity complied with the applied methodology.

During the verification all relevant monitoring parameters (as listed in the PDD) have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures.

Opinion:
The monitoring plan mentioned in the registered PDD is in line with the applied methodology i.e. — AMS-I.D. Version 18.0, Consolidated baseline methodology for grid-connected electricity generation from renewable sources. The monitoring mechanism is in line with the methodology and is effective and reliable.

3.4 Completeness of Monitoring

The monitoring has been carried out in accordance with the monitoring plan contained in the PDD (version 02.0, dated 15/03/2022) /10/. During the course of verification, all relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement / determination method and applied QA/QC procedures. It is confirmed that the monitoring parameters have been measured / determined without material misstatements.

The verification team reviewed the actual monitoring during the onsite interview and from document review and compared it against the requirements of the monitoring plan in the PDD /10/ and found it in line.

The verification team assessed the monitoring techniques and each monitoring value in the monitoring report; and provided a short summary on the verification of every parameter listed in the monitoring plan and used for calculation of emission reductions.

a. Data and parameters fixed ex ante or at renewable of crediting period

$EF^{grid,OM,y}$, $EF^{grid,BM,y}$, & $EF^{grid,CM,y}$ were mentioned as ex-ante fixed parameters.

The values for $EF^{grid,OM,y}$, $EF^{grid,BM,y}$, &$EF^{grid,CM,y}$ were considered from the CO2 Baseline Database Version 5.0 for the Indian Power Sector prepared by the Central Electricity Authority. The value of grid emission factor 0.9225 tCO_2/MWh is considered the grid emission factor for the GS4GG project. The assessment team concludes that the value is correct and appropriate. The default value in turn is used for baseline calculation as per the formula given in the registered PDD for

the current monitoring period. Assessment team checked the values, source of data, choice of data, purpose of the data mentioned in the MR from the registered PDD and confirms that the similar approach was considered for the current monitoring period also.

The relevant Emission factor values used for emission reduction calculation are as below. Also, as GS4GG "Principles and Requirements" V 1.2 the ex-ante fixed parameters are now connected to relevant SDG indicators which are acceptable to the assessment team.

$EF_{grid,OM,y}$- Relevant SDG Indicator= SDG13: Climate Action= 1.0050 tCO_2e/MWh
$EF_{grid,BM,y}$- Relevant SDG Indicator= SDG13: Climate Action= 0.6752 tCO_2e/MWh
$EF_{grid,CM,y}$- Relevant SDG Indicator= SDG13: Climate Action= 0.9225 tCO2e/MWh

b. Data and parameters monitored

Relevant SDG Indicator	**SDG 7.2.1**: Renewable energy share in the total final energy consumption
Data/parameter:	$EG_{BL, y}$
Unit	MWh
Description	Quantity of net electricity supplied to the grid by project activity
Measured/calculated/default	Calculated
Source of data	JMR Statements / Statements on Break-up of Net Export Units prepared by the O&M Service provider
Value(s) of monitored parameter	30,303.884~~3,385.26~~ The Vintage Wise values are described in the table below-
Monitoring equipment	Monitoring equipment: Energy meters (Main and Check Meter at Common Delivery Point Accuracy of Energy meters: 0.2 Monitoring Method: recording export & import in "generation statement" This statement includes monthly recording of electricity export & import. The detailed schedule of Calibration and energy meters used in project activity has been mentioned in Appendix 2
Measuring/reading/recording frequency:	Measurement: Continuous Measurement: Hourly Recording: Monthly
Calculation method (if applicable):	Net electricity generated is calculated from the readings of electricity exported to the grid and electricity imported from the grid indicated by the main meter connected to the incoming feeder of GUVNL. On a monthly basis, joint meter readings (JMRs) of the energy meters at metering points are being taken

Year	Net Electricity
2018	2,498.87~~15580.25~~
2019	15751.60
2020	12053.41

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	by representatives of the project promoters and the GETCO. Transmission losses are computed by GETCO and reported in the JMR statements. The details of the Meters are provided in appendix 2 of the report.
QA/QC procedures:	The values of electricity export, import, and transmission loss are cross- verified from the Proforma Invoices (statements on payment towards power purchased).
Cross Checks	The value was cross checked between JMR, Invoices and site log book.

Relevant SDG Indicator	**SDG 7.2.1**: Renewable energy share in the total final energy consumption
Data/parameter:	**$EG_{y,\ Export}$**
Unit	MWh
Description	Quantity of electricity exported to GUVNL facility
Measured/calculated/default	Measured
Source of data	Share certificate issued by GEDA monitored from the main GETCO meter
Value(s) of monitored parameter	1,355,908~~902,572~~
Monitoring equipment	Energy meters are used for this parameter.
Measuring/reading/recording frequency:	Monitoring continuous and Reported monthly. The data is recorded everyday and monthly values are reported in the monthly share certificates issued by GETCO
Calculation method (if applicable):	Not Applicable
QA/QC procedures:	Annual calibration of all the meters is to be undertaken and faulty meters to be duly replaced immediately. However, this could not happen during this monitoring period and delays were observed in the calibration of energy meters. Since the above parameter has no role in calculation of emission reductions, and only constitute a part of monitoring plan as per the registered PDD, hence error factor has not been applied.
Cross Checks	Electricity exported to GUVNL is being measured at the main meter connected to the incoming feeder of GUVNL. The procedures for metering is being followed as per the provisions

	of the power purchase agreement. This value is based on GETCO substation meter reading for wind farm which includes project activity WTGs and non project activity WTGs those are connected to the substation. The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.

Relevant SDG Indicator	**SDG 7.2.1**: Renewable energy share in the total final energy consumption
Data/parameter:	**$EG_{y,\ Import}$**
Unit	MWh
Description	Quantity of electricity imported to GUVNL facility
Measured/calculated/default	Measured
Source of data	Share certificate issued by GEDA monitored from the main GETCO meter
Value(s) of monitored parameter	50678
Monitoring equipment	Energy meters are used for this parameter.
Measuring/reading/recording frequency:	Monitoring continuous and Reported monthly. The data is recorded everyday and monthly values are reported in the monthly share certificates issued by GETCO
Calculation method (if applicable):	Not Applicable
QA/QC procedures:	Annual calibration of all the meters is to be undertaken and faulty meters to be duly replaced immediately. However, this could not happen during this monitoring period and delays were observed in the calibration of energy meters. Since the above parameter has no role in calculation of emission reductions, and only constitute a part of monitoring plan as per the registered PDD, hence error factor has not been applied.
Cross Checks	Electricity exported to GUVNL is being measured at the main meter connected to the incoming feeder of GUVNL. The procedures for metering is being followed as per the provisions of the power purchase agreement. This value is based on GETCO substation meter reading for wind farm which includes project activity WTGs and non project activity WTGs those are connected to the substation. The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.

Relevant SDG Indicator	**SDG 7.2.1**: Renewable energy share in the total final energy consumption
Data/parameter:	**$EG_{y, WTG}$**
Unit	MWh
Description	Electricity generated by each WTG
Measured/calculated/default	Measured
Source of data	Daily generation reports provided by Enercon India Limited
Value(s) of monitored parameter	30,821.78~~43,294.47~~
Monitoring equipment	Energy meters are used for this parameter.
Measuring/reading/recording frequency:	Monitoring continuous and Reported monthly. The data is recorded everyday and monthly values are reported in the monthly share certificates issued by GETCO
Calculation method (if applicable):	Not Applicable
QA/QC procedures:	The WTG integrated electronic meters are self-calibrating type and the same do not need calibration, this has been a standard practice in the wind farm.
Cross Checks	The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.

Relevant SDG Indicator	**SDG 7.2.1**: Renewable energy share in the total final energy consumption
Data/parameter:	**EG_{CM}**
Unit	MWh
Description	Electricity generated at the Cluster Meter (CM)
Measured/calculated/default	Measured
Source of data	Daily generation reports provided by Enercon India Limited

Value(s) of monitored parameter	31,155.96~~44,515.64~~
Monitoring equipment	Energy meters are used for this parameter.
Measuring/reading/recording frequency:	Measured & Recording Continuously and Reporting Daily
Calculation method (if applicable):	Not Applicable
QA/QC procedures:	As per the registered PDD the regular calibration of all the meters was to be undertaken yearly with an option of the faulty meters to be replaced immediately. However, this could not happen during this monitoring period and delays were observed in the calibration of energy meters. Since the above parameter has no role in calculation of emission reductions, and only constitute a part of monitoring plan as per the registered PDD, hence error factor has not been applied. There was no change in any of the meters during this monitoring period.
Cross Checks	The data will be kept for two years after the end of the crediting period or the last issuance of CERs for this project activity, whichever occurs later.

Relevant SDG Indicator	**SDG 13.2.1: Climate Action**
Data/parameter:	**ER_y**
Unit	tCO_2
Description	Emission reductions achieved per year
Source of data checked by the assessment team	Emission reduction sheet
Value(s) of monitored parameter	27,955~~40,022~~ The Vintage Wise values are described in the table below-

Year	Net Electricity
2018	2305~~14372~~
2019	14531
2020	11119

Means of verification:	Assessment team checked that the parameter was calculated. The electricity exported & imported is measured by the Energy meter installed at the substation. The JMR is cross-checked with the invoice copies. Emission reduction calculated is thus correct and accurate.
Cross check mechanism	All the formulas are applied in line with the registered GS4GG PDD

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<table>
<tr><td>Relevant SDG Indicator</td><td>SDG 8.5.1: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</td></tr>
<tr><td>Data/parameter:</td><td>Quantitative employment</td></tr>
<tr><td>Unit</td><td>Number</td></tr>
<tr><td>Description</td><td>Total employment generated due to the implementation of project activity</td></tr>
<tr><td>Measured/calculated/default</td><td>Not Applicable</td></tr>
<tr><td>Source of data</td><td>Plant records or training records for all the employees/ Letter from O&M contractor for employment generation/ DOE interview with employees, local stakeholders etc.</td></tr>
<tr><td>Value(s) of monitored parameter</td><td>Average employment for the present monitoring period is 16.
2018 : 16
2019 : 16
2020 : 16
Total no. of persons employed during this monitoring period provided by the PP was cross checked with plant records and through interviews. A total of 16 jobs were given during the monitoring period.

Further below is the breakup of employment generated during the monitoring period:

<table>
<tr><th>Year</th><th>Skilled</th><th>Unskilled</th><th>Total</th></tr>
<tr><td>2018</td><td>11</td><td>05</td><td>16</td></tr>
<tr><td>2019</td><td>11</td><td>05</td><td>16</td></tr>
<tr><td>2020</td><td>11</td><td>05</td><td>16</td></tr>
</table>

Further, the same has been cross-checked by the VVB during a physical audit by means of attendance register and interviewing employees and salary Slips. The Project thus provides employment opportunities, pays salaries and welfare, and helps to increase the income and living standards of the employees.</td></tr>
<tr><td>Monitoring equipment</td><td>-</td></tr>
<tr><td>Measuring/reading/recording frequency:</td><td>Monthly monitoring and annual compilation</td></tr>
<tr><td>Calculation method (if applicable):</td><td>The total number of persons working in the plant is calculated based on the daily log available at the site.</td></tr>
<tr><td>QA/QC procedures:</td><td>The number of persons employed is mentioned in the plant register and is cross-checked with the attendance register. The information required for this parameter is checked by VVB during a physical audit through interviews with people and through relevant supporting documents.</td></tr>
<tr><td>Cross Checks:</td><td>Employment records</td></tr>
</table>

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<table>
<tr><td>Relevant SDG Indicator</td><td>8.6.1 Proportion of youth (aged 15-24 years) not in education, employment or training</td></tr>
<tr><td>Data/parameter:</td><td>Quality of employment</td></tr>
<tr><td>Unit</td><td>Number of Trainings provided to employees</td></tr>
<tr><td>Description</td><td>Training of Staff</td></tr>
<tr><td>Measured/calculated/default</td><td>Not Applicable</td></tr>
<tr><td>Source of data</td><td>Plant records or training records for all the employees/Letter from O&M contractor for employment generation/ DOE interview with employees, local stakeholders etc.</td></tr>
<tr><td>Value(s) of monitored parameter</td><td>056 trainings (5 technical trainings and 01 non-technical training)

PP has confirmed that a total of 056 trainings were conducted during this monitoring period.
<table>
<tr><th>Sr. No</th><th>Date</th><th>Topic</th><th>Total Number of People</th><th>Type</th><th>Name of Trainer</th></tr>
<tr><td>1</td><td>08/10/2018</td><td>Behavioural Changes</td><td>4</td><td>Non-Tech</td><td>Ramesh Singh</td></tr>
<tr><td>12</td><td>03/12/2018</td><td>Electrical Maintenance</td><td>4</td><td>Tech</td><td>Abhishek Choudhary</td></tr>
<tr><td>23</td><td>24/12/2019</td><td>Work at height</td><td>6</td><td>Tech</td><td>Pragnesh Soni</td></tr>
<tr><td>34</td><td>31/12/2019</td><td>Transformer Replacement</td><td>5</td><td>Tech</td><td>Ramesh Singh</td></tr>
<tr><td>45</td><td>15/04/2020</td><td>Electrical Safety Training</td><td>6</td><td>Tech</td><td>Abhishek Choudhary</td></tr>
<tr><td>56</td><td>23/05/2020</td><td>Work at Height</td><td>6</td><td>Tech</td><td>Pragnesh Soni</td></tr>
</table>
VVB confirmed the details provided in MR with the training register and the attendance sheet and also cross-checked by conducting interviews during physical audit.</td></tr>
<tr><td>Monitoring equipment</td><td>Not applicable.</td></tr>
<tr><td>Measuring/reading/recording frequency:</td><td>Annually</td></tr>
</table>

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Calculation method (if applicable):	-
QA/QC procedures:	The data is cross checked annually with the CSR records by the consultant.
Cross Checks:	Training records.

The verification team confirms;
a) The monitoring plan implemented is in line with the monitoring plan included in the approved GS4GG PDD.
b) The monitoring complies with the requirements of the applied methodology.
c) The information inflow (from data generation, aggregation, to recording, calculation and reporting) is included above under each parameter and conforms to the requirements of the approved PDD.
d) The values included in the monitoring report and corresponding emission reduction sheets are verified, cross checked and included under each monitoring parameter, wherever appropriate
e) The findings relevant to each parameter, wherever appropriate are discussed in detail in Appendix 1 of this report.

In summary, the verification team confirms that all the ex-post parameters are monitored in accordance with the approved monitoring plan and applied methodology.

c. Implementation of sampling plan

PP did not apply a sampling plan to determine data and parameters monitored during this monitoring period. The verification team has checked all the documents such as JMR issued by the State electricity board /Invoices etc. and hence a sampling plan was not required. The verification team hereby confirms that it has checked all the documents.

d. Compliance with the calibration frequency requirements for measuring instruments

The calibration details such as make, accuracy class serial number is as per the meter available onsite which was shared by PP and checked by the verification team and found the details in line with approved PDD. The calibration details are presented in Appendix 2 of this report.

Assessment team checked the same and found that the calibration is appropriate and correct as traceability is ensured. The meters were calibrated as per the applicable norms and the meters are within the permissible error limit.

3.5 SDG Outcomes Monitoring

For Contributions to Sustainable Development

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The verification team checked the sustainable development indicator parameters during the physical audit and interview.

In Summary, it is Applus+ Certification's opinion that the monitoring of the project owner regarding sustainability is in line with the requirements of the GS4GG guideline.

As per the sustainability monitoring plan in the approved PDD, the verification team evaluated all sustainable development indicators as followed in the table:

Item	Baseline estimate	Project estimate	Net benefit
SDG 7: Affordable and Clean Energy	-	30,303.8843,385.26 MWh	30,303.8843,385.26 MWh
SDG 8: Decent Work and Economic Growth	-	No. of employment opportunities created: 16 No. of training given:056	No. of employment opportunities created: 16 No. of training given: 056
SDG 13: Climate Action	-	27,95540,022 tCO_2e	27,95540,022 tCO_2e

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Comparison of actual value of outcomes with estimates in approved GS PD

Item	Values estimated in ex ante calculation of approved PDD	Actual values achieved during this monitoring period
SDG 7: Affordable and Clean Energy	39,329.453,386.10 MWh electricity generation	30,303.8843,385.26 MWh electricity generation
SDG 8: Decent Work and Economic Growth	No. of employment opportunities created: 10 No. of training given: 01	No. of employment opportunities created: 16 No. of training given: 056
SDG 13: Climate Action	36,28049,249 tCO_2e emission reduction	27,95540,024 tCO_2e emission reduction

The adequacy and compliance of the monitoring plan in the Monitoring report was found as per the requirements laid by the approved GS4GG PDD. The information flow (from data generation, aggregation, to recording, calculation and reporting) is already included under the respective parameter above. The verification team has verified all the data and collected evidence as per the required monitoring frequency and found it to be correct and appropriate in meeting the requirements of the applied methodology and registered PDD.

As a part of continuous feedback from stakeholders, the grievances register is being placed at site and is being continuously monitored and addressed through the grievances cell on a regular basis and maintained in a register at Rohit Surfactants Pvt. Ltd. site office. The comments received have been described in the Monitoring report along with the actions undertaken. The grievance

register provided to the verification team was also checked and it was found that during the current monitoring period, no comments/feedback were received from the local stakeholders.

Also, during the onsite visit, Applus+ Certification conducted an interview with the project owner and local stakeholders. Please find the summary of the interview as below:

Sections	Debriefing
Trainings & salaries of the employees	During the onsite interview, Mr. S.K. Bajpai, PP representative team was interviewed. It was noted that regular technical training was conducted and the salaries are in line with the industry standard.

In Summary, it is Applus+ Certification's opinion that the monitoring of the project owner regarding sustainability is in line with the requirements of the GS4GG guideline.

3.6 Assessment of Data and Calculation of Greenhouse Gas Emission Reductions

As a result of verification of the ER calculation process, the assessment team confirmed that all the parameters required for the determination of the emission reductions have been included in the Monitoring report Version 01 ~~,&~~ Monitoring report Version 02,Monitoring report version 03 & Monitoring report Version 04 and corresponding ER calculation spreadsheets and are consistent with the applied methodology AMS-I.D. Version 18.0 and the monitoring plan contained in the registered PDD. The parameters are complete in this monitoring period.

After verifying the reported figures with the raw data sources, it's confirmed that the values of the parameters from the raw data sources are consistent with those quoted in the Monitoring Report Version 0~~13~~ and corresponding ER calculation spreadsheets. The verification process for the same has been clearly described in the above section of the report. See below for the detailed data:

Baseline Emissions for the amount of electricity supplied by project activity, BE_y is calculated as:

Project emissions:

Project Emissions, $PE_y = 0$

Emission reductions:

Calculation of baseline emission is as follows;
$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$

Where,
BE_y = Baseline emissions in year y (tCO_2/yr)

$EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh

$EF_{grid,CM,y}$ = Combined margin CO_2 emission factor for grid connected power generation in year y i.e. 0.9225 tCO_2/MWh

As per para 26 of AMS-I.D., version 18.0, when the project activity is installation of a Greenfield power plant, then:
$EG_{PJ,y} = EG_{facility, y}$

Where,
$EG_{facility, y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)
= 30,303.88~~43,385.26~~ x 0.9225
= 27,955~~40,022~~ tCO_2e (Rounded down)

3.7 Management and Operational System

The responsibilities of data measurement, collection, verifying, archiving etc. have been clearly defined in the approved PDD V02. The same practice is followed onsite and it is confirmed by the assessment team during the verification audit. The data related to ER calculation as well as data monitoring, collection process etc. have been internally reviewed by the management of the Monitoring team regularly. The responsibility of each function is consistent with the monitoring plan in the registered PDD.

The information flow of each parameter has been verified by the assessment team via interviewing with responsible personnel.

It's verified during the physical site audit, the monitoring procedure as well as the internal quality management and control procedures are stipulated in the PDD. The monitoring personnel have been interviewed by the assessment team and it's confirmed that the monitoring is implemented as per the procedure. Also, the training record (Training register and attendance sheet) has been checked by the assessment team and it is confirmed that the monitoring personnel are getting sufficient training to perform the monitoring.

All the data and documents, either hard copies or soft copies, will be kept for two years after the end of the last crediting period or the last issuance of GS VERs for this Project, whichever occurs later.

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4. REFERENCE

LIST OF DOCUMENTS	
S. No.	**Document/Evidence/Reference/Web link, Version, Date**
/01/	GS MR 7589 Version 01 dated 08/10/2021
/02/	GS MR 7589 Version 02 dated 15/03/2022
/03/	~~Final~~ GS MR 7589 Version 03 dated 23/08/2022 Final GS MR 7589 Version 04 dated 28/09/2022
/04/	Emission reduction Sheet version 01
/05/	Emission reduction Sheet version 02
/06/	Emission reduction Sheet version 03
/05/	Joint Meter Reading (JMR)/ Invoices
/06/	Actual geo-coordinates
/07/	Break Down details of plant
/08/	Calibration certificates
/09/	Training record
/10/	Registered PDD
/11/	EHS Policy
/12/	GS registered Validation Report
/13/	AMS-I.D. Version 18.0 Methodology
/14/	CDM VVS version 03 for the project activities
/15/	The Gold Standard for Global Goals "Principles and Requirement" V 1.2
/16/	Employment records
/17/	Commissioning certificates for the power plant
/18/	Log book records for scheduled maintenance of the power plant for the complete monitoring period
/19/	Grievance register
/20/	CSR records
/21/	HR policy of Rohit Surfactants Pvt. Ltd.
/22/	Project O&M HSE logbook, or interview with maintenance staff

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5. FINAL VERIFICATION STATEMENT

Applus+ Certification has been engaged by Rohit Surfactants Pvt. Ltd. to perform the 1st periodical verification of the "9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd."

The management of Rohit Surfactants Pvt. Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's Monitoring Plan in the validated PDD Version 02 and the applied methodology AMS-I.D. Version 18.0.

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board and Gold Standard. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. The verification can confirm that:

- the project is operated as planned and described in the approved GS4GG project design document;
- the monitoring plan is as per the applied methodology;
- the monitoring in the Monitoring Report is as per the PDD and the monitoring plan approved by GS4GG;
- the development and maintenance of records and reporting procedures are in accordance with the registered monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.

In our opinion, the GHG emission reductions for "9.6 MW Wind Energy Project at Jamvadi & Navagam & Kalavad, Jamnagar, Gujarat, India of Rohit Surfactants Pvt. Ltd." for the monitoring period 2107/1001/2018 to 31/12/2020 (Both days included) as reported in the Monitoring Report, prepared on the basis of the project's Monitoring Plan, are fairly stated.

Based on the information we have seen and evaluated, we confirm the following statement:

Reporting period:	2107/1001/2018 to 31/12/2020 (Both days included)

Verified emissions in the above reporting period:

Leakage emissions	0 tCO_2e equivalents
Project emissions	0 tCO_2e equivalents
Baseline emissions	27,95540,022 tCO_2e equivalents
Emission reductions	27,95540,022 tCO_2e equivalents

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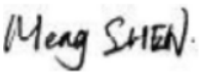
Date: 29/09/~~24/08/~~2022
Lead Auditor: Mr. Pankaj Kumar
Tech. Expert: Mr. Pankaj Kumar
Tech. Reviewer: Mr. Simon Shen

Approver *(Applus+ Certification VVB Technical Manager)*

Mr. Agustín Calle de Miguel

ASSESSMENT TEAM	
Lead Auditor: Mr. Pankaj Kumar	**Technical Reviewer:** Mr. Simon Shen
Signature: 	Signature: 
Approver: Mr. Agustín Calle de Miguel	
Signature: 	

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Appendix 1: Corrective Action Request/Clarification Request/Forward Action Request resolution table

Type:	☒ CAR ☐ CL/CR ☐ FAR	Number:	01
Raised by:	Pankaj Kumar	Ref. to checklist in above tables:	
Description of the audit finding		Date:	21/12/2021
1. The supporting document required SDG 7, 8 and 13 pertaining to table 1 and 2 is missing. The actual ER achieved for SDG 13 cannot be confirmed as the ER sheet is not provided. CAR is thus raised 2. The commissioning certificate is not provided and therefore the dates cannot be confirmed. CAR is thus raised for the same.			
Project Participant's response		Date:	15/03/2022
1. The Supporting Documents required for SDG 7, 8 and 13 have been provided. The ER-Sheet Version 01 has been provided for the confirmation of actual ER values. 2. Commissioning certificate has been provided to the VVB.			
Documentation provided as evidence by Project Participant			
Share Certificates, Invoices, Training Documents, Attendance Sheet, Salary Slips and ER Sheet Version 01			
Auditor's assessment comment		Date:	24/03/2022
1. PP has now provided the ER spreadsheet version 02 which is cross-checked for the SDG impact of goals 7, 8 and 13 achieved for this monitoring period along with the supporting documents. The same is verified by VVB and found correct. Hence, **comment closed.** 2. PP has provided a copy of the commissioning certificate. The same is verified and found correct. Hence, **comment closed.**			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	Pankaj Kumar	Ref. to checklist in above tables:	B
Description of the audit finding		Date:	21/12/2021
1. The technical specifications of the WTGs are not provided to the assessment team. CAR is thus raised for the same. 2. The breakdown details are not submitted. Moreover, the details are not mentioned in the MR.			
Project Participant's response		Date:	15/03/2022
1. Technical Specification of the WTG is provided to the VVB. 2. Breakdown details are submitted to the VVB.			
Documentation provided as evidence by Project Participant			
Revised GS-MR version 02, Breakdown details, WTG product brochure.			

Auditor's assessment comment	Date:	24/03/2022
1. PP has now provided the technical specifications of the WTGs in the revised GS MR Ver. 02 dated 15/03/2022. The same is checked and found correct. Hence, **comment closed.** 2. PP has now provided breakdown details in Appendix 2 of revised GS MR Ver. 02 dated 15/03/2022. The same is checked and found correct. Hence, **comment closed.**		

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	03
Raised by:	Pankaj Kumar	Ref. to checklist in above tables:	D and E
Description of the audit finding		Date:	21/12/2021
The emission reduction as well as the error factor(if any) cannot be confirmed. The value in section D.1 cannot be confirmed. Moreover, the supporting like JMR and Invoices is missing. Corrective action is sought for the same.			
Project Participant's response		Date:	15/03/2022
The error factor can be confirmed from the error applied to the delayed calibration months in the ER-Sheet. The JMR and Invoices are provided for the entire monitoring period.			
Documentation provided as evidence by Project Participant			
ER-Sheet version 01, Revised GS-MR version 02, JMR, Invoices.			
Auditor's assessment comment		Date:	24/03/2022
PP has now updated Sec D.1 as required in revised GS MR Ver. 02 dated 15/03/2022. The same is checked and found correct. Hence, **comment closed**			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	04
Raised by:	Pankaj Kumar	Ref. to checklist in above tables:	D and E, E.1
Description of the audit finding		Date:	21/12/2021
1. The Calibration details for the concerned monitoring period do not form the part of the MR and the calibration certificate is missing for the same. Corrective action is sought for the same. 2. The estimated value for SDG 8 is a mismatch as PDD mentions 1 training and 10 employment whereas MR says 1 training and 5 people employed. Mismatch should be corrected. Corrective action is sought for the same.			
Project Participant's response		Date:	15/03/2022
1. The calibration certificates are provided for the entire monitoring period. The calibration details are clearly mentioned in the Revised GS-MR version 02. 2. The correct estimated value of the estimated value for SDG 8 parameter has been updated as per the PDD and is consistent throughout the Revised GS-MR version 02.			
Documentation provided as evidence by Project Participant			

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Calibration Certificates, Revised GS-MR version 02		
Auditor's assessment comment	Date:	24/03/2022
1. PP has now provided meter calibration details in Annexure 1 of the revised GS MR Ver. 02 dated 15/03/2022 along with the submission of calibration certificates and JMR invoices for the current monitoring period. VVB confirmed that documents submitted are in line with monitoring requirements as per approved PDD. Hence, **comment closed.** 2. PP has now revised the estimated value for SDG 8 in the revised GS MR Ver. 02 dated 15/03/2022. Hence, **comment closed.**		

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	05
Raised by:	Pankaj Kumar	Ref. to checklist in above tables:	G
Description of the audit finding		Date:	21/12/2021
PP shall provide a scanned copy of the grievance register.			
Project Participant's response		Date:	15/03/2022
Scanned copy of the grievance register has been provided to the VVB.			
Documentation provided as evidence by Project Participant			
Grievance register			
Auditor's assessment comment		Date:	24/03/2022
Grievance register provided by PP and VVB confirmed that no grievances were received during this monitoring period. **Comment closed.**			

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Appendix 2: Calibration details of monitoring meters

Main Meter	**Meter1**	**Meter 2**	**Meter 3**	**Meter 4**
Location	Transformer 1	Transformer 2	Transformer 3	Transformer 4
Calibrating Agency	PGVCL	PGVCL	PGVCL	PGVCL
Serial Number	GJU04175	GJU04176	GJB01470	KAB11082
Type	E3M021	E3M021	E3M021	E3M021
Accuracy	0.2s	0.2s	0.2s	0.2s
Make	Secure	Secure	Secure	Secure
Previous Calibration	~~20/06/2018~~~~30/09/2016~~	~~20/06/2018~~~~30/09/2016~~	~~20/06/2018~~~~30/09/2016~~	~~20/06/2018~~~~30/09/2016~~
For the current Monitoring Period	~~20/06/2018,~~ 22/06/2019, 26/06/2020	~~20/06/2018,~~ 22/06/2019, 26/06/2020	~~20/06/2018,~~ 22/06/2019, 26/06/2020	~~20/06/2018,~~ 22/06/2019, 26/06/2020
Valid Till	25/06/2021	25/06/2021	25/06/2021	25/06/2021
Months in which error has been applied due to delay in calibration	~~Jan-18, Feb-18, Mar-18, Apr-18, May18, Jun-18,~~ Jun-19 and Jun-20	~~Jan-18, Feb-18, Mar-18, Apr-18, May18, Jun-18,~~ Jun-19 and Jun-20	~~Jan-18, Feb-18, Mar-18, Apr-18, May18, Jun-18,~~ Jun-19 and Jun-20	~~Jan-18, Feb-18, Mar-18, Apr-18, May18, Jun-18,~~ Jun-19 and Jun-20

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Appendix 3: Audit Team CVs

Name	SHORT CV. BACKGROUND INFORMATION
Mr. Pankaj Kumar	**Mr. Pankaj Kumar** has done M. Sc in Environment Management from Forest Research Institute, Dehradun and B. Sc. (Hons.) in Environment & Water Management from Magadh University, Bihar, India. He has also done a Post Graduate Diploma in Environmental Law from NLSIU, Bangalore. He has more than 12 years of working experience in GHG Assessments and has participated during his career in Agencies and DOEs like MITCON, Agrinergy, Carbon Check and is empanelled with Applus+ Certification since 2015 for the performance of CDM/VCS/GS project assessments. He has extensive experience in the Renewable, Waste Management and Energy Demand Scopes of UNFCCC CDM and has done more than 100 Validations and Verifications of PAs and PoAs as Lead Auditor, Technical Expert and Technical Reviewer, mainly in Asia, Africa, USA, Asia Pacific and Americas under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He is an experienced, qualified and result oriented Environment and climate change professional having 16 yrs. of relevant experience in Climate Change (Mitigation & Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Climate finance, adaptation planning, capacity building, validation and verification of GHG project. He can also provide technical support for environmental investigative, remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon footprinting.
Mr. Simon Shen	Mr. Simon Shen (Master's Degree in Thermal Energy Engineering, Bachelor's Degree in Environmental Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment, auditing and technical review. He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and review with Applus+, apart from the years of experience working as GHG Auditor and ISO 9001/14001 in TUV SUD for 3.5 years before he joined Applus+. Mr. Simon Shen has extensive experience also as former Applus+ Shanghai CDM Technical Manager.