

VERIFICATION & CERTIFICATION REPORT

For the GS-VER Project Activity

100.5 MW Wind Power Project in Madhya Pradesh,
India
In
INDIA
(GS REF. No. 3969)

1st Monitoring Period
01/01/2015 to 31/03/2016 (including both the days)

REPORT No.
GS.16.VER.005

Date of this issue:13/10/2017		KBS Ref. No.: GS.16.VER.005	
Project Title:		100.5 MW Wind Power Project in Madhya Pradesh, India	
Organization:		KBS Certification Services Pvt. Ltd.	
Client:		Orange Mamatkhedha Wind Private Limited	
Monitoring Period:		01/01/2015 to 31/03/2016 (including both dates)	
Summary:			
KBS Certification Services Pvt. Ltd. has performed the 1st periodic verification of the GS-VER project "100.5 MW Wind Power Project in Madhya Pradesh, India" with Gold Standard Ref. Number GS 3969. The verification includes confirming the implementation of the monitoring plan of the registered PDD and the application of the monitoring methodology as per CDM Methodology ACM0002 "Grid-connected electricity generation from renewable sources" Version 16.0. A site visit was conducted to check the implementation of registered monitoring plan and verify the data submitted in the monitoring report. KBS confirms the following has been reviewed; (a) The registered PDD and the monitoring plan, and the corresponding validation opinion; (b) The Gold Standard passport; (c) The applied monitoring methodology(ies); (d) The monitoring report to verify that it is as per the standardized format; (e) Any other information and references relevant to the project activity's emission reductions (e.g. IPCC reports, data on electricity generation in the national grid or laboratory analysis and national regulations); (f) VER calculations sheets and all supporting documents; KBS Certification Services Pvt. Ltd. Confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 214,170 tCO₂e emission reductions during period 01/01/2015 to 31/03/2016 (including both the days).			
Subject Group:		Sectoral Scope(s):	
GS Verification		1	
Version of GS rules: 2		Methodology:	
		ACM0002 "Grid-connected electricity generation from renewable sources" Version 16.0	
Verification Team:		Monitoring report:	
Team Leader	Ma Paa Puratchikkanaal	First version	28/05/2017
Local Expert	Ma Paa Puratchikkanaal	Final version	13/10/2017
Technical Expert (1.2)	Ma Paa Puratchikkanaal		
Independent Technical Reviewer Team		Verification status:	
Date: 15/07/2017			
Technical Reviewer	Sanjay Kandari	☐ Findings not closed.	
TR Expert (1.2)	Sanjay Kandari	☐ Draft verification opinion	
Manager T&C	Sanjay Kandari	☒ Final verification opinion	
13/10/2017			
Authorized Signatory:			
Date: 13/10/2017			
Managing Director	Kaushal Goyal	☒ No distribution without permission from client	
Revision history:		☐ Unrestricted distribution	
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03/10/2017	2	
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Abbreviations

CAR	Corrective Action Request
CL	Clarification Request
CO ₂	Carbon dioxide
CO _{2e}	Carbon dioxide equivalent
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS	Gold Standard
HH	Household
IPCC	Intergovernmental Panel on Climate Change
MP	Monitoring Plan
MPPMCL	MP Power Management Company Limited
MR	Monitoring Report
NGO	Non-governmental organization
OMWPL	Orange Mamatkheda Wind Private Limited
OSV	On-site visit
PDD	Project Design Document
PP	Project proponent
QA/QC	Quality Assurance/Quality Control
SD	Sustainable Development
UNFCCC	United Nations Framework Convention on Climate Change
VER	Voluntary Emission Reduction
VVS	Validation and verification standard

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1. INTRODUCTION

1.1 Objective

KBS has been commissioned by “Orange Mamatkhedha Wind Private Limited” to perform an independent verification of its registered GS-VER project “100.5 MW Wind Power Project in Madhya Pradesh, India” (GS: 3969) for the reported GHG emission reductions for the given monitoring period 01/01/2015 to 31/03/2016 (both dates included). The Gold Standard projects must undergo independent third party verification and certification of emission reductions as the basis for issuance of Gold Standard Voluntary Emission Reductions (GS VERs).

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented and operated as per the registered PDD and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- Monitoring report and other supporting documents are complete;
- The actual monitoring systems & procedures and monitoring report conforms with the requirements of the approved monitoring plan and the approved monitoring methodology;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.

1.2 Scope

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on review of monitoring report, supporting information and

- (a) The registered PDD, including the monitoring plan and the corresponding validation opinion(s);
- (b) Previous verification reports, deviation requests, requests for revision of monitoring plan;
- (c) Monitoring report for the monitoring period under verification including GS VER calculations sheets and all supporting documents;
- (d) The applied monitoring methodology;
- (e) Relevant decisions, clarifications and guidance from the CMP and the Gold Standard Board;
- (f) All information and references relevant to the project activity’s resulting in emission reductions

The project is assessed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance.

KBS has, based on the recommendations in the latest version of Gold Standard Toolkit and CDM Validation and Verification Standard, employed a rule-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

1.3 Description of the Project Activity

Title of project activity:	100.5 MW Wind Power Project in Madhya Pradesh, India
Gold Standard Id:	GS3969
Applied methodology:	ACM0002 “Grid-connected electricity generation from renewable sources” Version 16.0
Start date of crediting period:	01/01/2015
Project Participants:	Orange Mamatkhedha Wind Private Limited
Location of the project activity:	State – Madhya Pradesh. WTGs are located at Bagiya, Kanser, Mawta, Nandwell, Ranigaon, Thikriya, Bhandariya, Bhepur,

Chandakhedi, Dehari, Dhandhoda, Garoda, Karju and Sagwali, villages of Ratlam & Mandsaur Districts.

The project activity is the installation of 67 Wind Turbine Generators (WTGs) of 1.5 Mw each Bagiya, Kansar, Mawta, Nandwell, Ranigaon, Thikriya, Bhandariya, Bhepur, Chandakhedi, Dehari, Dhandhoda, Garoda, Karju and Sagwali, villages of Ratlam & Mandsaur districts of Madhya Pradesh in India

The project activity involved setting up of WTGs to harness the power of wind to produce electricity. In the absence of the project activity, the equivalent amount of power would have been supplied by the state grid (part of NEWNE grid), which is fed mainly by fossil fuel fired plants.. Thus the project activity reduces the CO₂ emissions compared to the baseline scenario. In total of 67 Wind Turbine Generators (WTGs) of 1.5 MW each have been installed. The commissioning certificates of all the WTGs have been verified.

2. METHODOLOGY

KBS follows a rule based verification approach, wherein, as a first step, the contract review is undertaken as per latest version of CDM Accreditation Standard. Subsequently, after the contract is signed, the monitoring report of the project activity is made available at Gold Standard registry as per CDM procedures in accordance with Gold Standard rules. Since the Gold Standard prescribes the application of CDM rules and guidelines which are followed along with the Gold Standard rules.

A desk review of the project documentation is undertaken, which is followed by an onsite visit by the members of verification team in accordance with the latest version of CDM AS. The verification protocol is filled by the verification team that is based on standard auditing practices and latest version of CDM VVS, to capture the assessment of applicable CDM requirements viz., latest version of CDM Project Standard, registered PDD, applied methodology/ies and/or tools and recent decisions. The verification protocol provides transparent means to record the observations and compliances by the verification team members and the nonconformities, if any. The verification protocol is an internal document, and is available on request. Following are the major milestones for the verification under consideration.

Duration of verification

Verification Contract	21/06/2016
On site verification	03/06/2017 to 04/06/2017
Draft Verification Report	19/05/2017
Final Verification Report	13/10/2017

2.1 Review of Documentation

A desk review is undertaken, involving but not limited to,

- A review of the data and information presented to verify their completeness;
- A 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;
- An 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.

The list of documents reviewed is included in the section 'References'

2.2 Site Visits

A site visit is undertaken by members of verification team, involving but not limited to,

- An assessment of the implementation and operation of the proposed GS project activity as per the registered PDD;
- A review of information flows for generating, aggregating and reporting the monitoring parameters;
- Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance with the approved monitoring plan;
- A cross-check between information provided in the monitoring report and data from other sources such as plant log books, inventories, purchase records or similar data sources;
- A check of the monitoring equipment, including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An 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 site visit for this verification assessment was undertaken by Ma Paa Puratchikkanal (Team Leader & Technical Expert for 1.2 and Local Expert). The details are mentioned below;

Location				Ratlam & Mandsaur Districts. districts of Madhya Pradesh
Dates				03/06/2017 & 04/06/2017
S. No.	Name of person interviewed	Designation, Organization	Means of interview	Key points discussed
1	Mr. Anil	Orange	In person	- General aspects of the project - Changes since validation - Remaining issues from validation - Quality management system - Involved personnel and responsibilities - Training and practice of the operational personnel - Implementation of the monitoring plan - Monitoring data management - Data uncertainty and residual risks - Procedural aspects of the Monitoring - Maintenance - Issues in the MR - ER calculation
2	Mr. Vamsi Krishna	Kosher Climate India (P) Ltd , CDM Consultant	In person	
3	Mr. Rakesh Dube	Local Stakeholder	In person	
4	Mr. Praveen Negi	Local Stakeholder	In person	
5	Mr. Sudheer	Local Stakeholder	In person	
6	Mr. Badangi	Local Stakeholder	In person	
7	Mr. Brijesh Gupta	Local Stakeholder	In person	
8	Mr. Kawinder Singh	Local Stakeholder	In person	

9	Mr. Sunil Lalwani	Local Stakeholder	In person	
10	Ms. Madhu	Local Stakeholder	In person	
11	Ms. Seema	Local Stakeholder	In person	
12	Mr. Ritesh	Local Stakeholder	In person	
13	Mr. Dinesh	Local Stakeholder	In person	
14	Mr. Chandlal	Local Stakeholder	In person	
15	Mr. Mukesh Paswal	Local Stakeholder	In person	
16	Mr. Javed	Local Stakeholder	In person	
17	Mr. Ravindev	Local Stakeholder	In person	

2.3 Reporting of Findings

During the course of verification the findings may be raised as under;

CAR is raised if one of the following occurs:

- 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(s) have not been resolved by the project participants.

Corrective Action Requests (CARs) and Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

FAR is raised during verification if the monitoring and reporting require attention and/or adjustment for the next verification period.

The verification report contains (section 7) all, CARS and CLs raised during this verification in transparent manner and provides clear information of the issues raised, response received and its resolutions, including the changes in the documents. Additionally, major changes between the webhosted MR and final MR are presented under Section 6 (below the Reference) for easy reference.

2.4 Verification Assessment

Based on the desk review and site visit the team leader follows the verification protocol to identify and record the findings in the context of the project activity. The findings are communicated to the client in the findings document (section 7 of report). The project documentation, including responses to the findings is reviewed by the team leader in consultation with team members, wherever appropriate. The team leader prepares the draft verification report subject to closure or non closure of the findings.

2.5 Internal Quality Control

The draft verification report prepared by team leader is reviewed by an independent technical reviewer (having competence of relevant technical area himself/herself or through an independent technical area expert) to confirm the internal procedures established by KBS are duly followed and the verification report/opinion is reached in an objective manner and complies with the applicable CDM requirements.

The independent technical reviewer may approve or reject the draft verification report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before the request for issuance is submitted to Gold Standard. The final decision is taken by the Manager Technical and Certification. The technical reviewer and Manager T&C can be same person.



The final decision is authorized by Managing Director, KBS once the report is approved by the Manager T&C.

3. VERIFICATION FINDINGS

3.1 Remaining Issues (FARs from Previous Validation or Verification)

Discussion:

This is the first periodic verification. No FAR was raised during validation stage.

Findings:

No finding has been raised.

3.2 Compliance of project implementation with registered PDD

Discussion:

Project Participants:	Orange Mamatkhedha Wind Private Limited
Title of project activity:	100.5 MW Wind Power Project in Madhya Pradesh, India
GS registration No:	GS 3969
Baseline and monitoring methodology:	ACM0002 "Grid-connected electricity generation from renewable sources" Version 16.0
Project Type:	Generation of electricity from wind
Project Scale:	Large
Location of the project activity:	State – Madhya Pradesh. WTGs are located at Bagiya, Kanser, Mawta, Nandwell, Ranigaon, Thikriya, Bhandariya, Bhepur, Chandakhedi, Dehari, Dhandhoda, Garoda, Karju and Sagwali, villages of Ratlam & Mandsaur districts
Project's crediting period length :	7 years (Renewable)
Period verified in this verification:	01/01/2015 to 31/03/2016 (Including both the days)

The project activity is the installation of of 67 Wind Turbine Generators (WTGs) of 1.5 Mw each Bagiya, Kanser, Mawta, Nandwell, Ranigaon, Thikriya, Bhandariya, Bhepur, Chandakhedi, Dehari, Dhandhoda, Garoda, Karju and Sagwali, villages of Ratlam & Mandsaur districts of Madhya Pradesh in India

The project activity involved setting up of WTGs to harness the power of wind to produce electricity. In the absence of the project activity, the equivalent amount of power would have been supplied by the state grid (part of NEWNE grid), which is fed mainly by fossil fuel fired plants. Thus the project activity reduces the CO₂ emissions compared to the baseline scenario. In total of 67 Wind Turbine Generators (WTGs) of 1.5 MW each have been installed.

The project has been registered as a GS VER project by the Gold Standard Foundation on 01/01/2017 with the project ID GS 3969

The verification team determined the conformity of the implementation of the project and its operation with the registered project design document. Verification team has, by means of a desk review and an on-site visit, assessed that all physical features of the component project activity proposed in the registered PDD/3/ are in place, and that the project participants have operated the project as per the registered PDD/3/.

The verification team has checked the information in the monitoring report and compared against the registered PDD.

During the onsite inspection, the verification team has checked the project locations, implementation, technology applied, project equipment, and monitoring system against the information in the registered PDD. Interviews with operational personnel have been carried out.

The verification team has reviewed the WTG installation documents viz. purchase orders, commissioning certificates, log book records and O&M records. The verification team has observed during site visit that all physical locations of the WTGs are correctly matching with the monitoring report and monitoring records maintained by PP. Thus the verification team concludes that the project was implemented and operated as per registered PDD. The verification team, based on the site visit and document review, was able to conclude that the project has been commissioned and implemented as per the registered PDD and that all physical features of the project are in place.

Monitoring procedure of GHG data is found sufficient and in accordance with the procedures stipulated under the registered monitoring plan.

Any Project Design Change been sought and approved by GS Secretariat for the project?	☐ Yes ☒ No	NA
Any Changes in the monitoring Plan caused by material and permanent design Changes which was approved by GS Secretariat?	☐ Yes ☒ No	NA
Any changes in the sustainable development monitoring plan?	☐ Yes ☒ No	NA
Any Revision in Monitoring plan is sought and approved by EB for the project?	☐ Yes ☒ No	NA

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

Milestone of the project activity	Timeline	Assessment by the verification team
Registration of the project activity	01/01/2017	Verification team verified the registration of the project activity from the GS registry and found appropriate. The same can be accessed from the link provided below: https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000009191
Crediting period		
1 st monitoring period (current verification)	01/01/2015 to 31/03/2016	Verification team has verified same from the monitoring report/1/. Also the monitoring period is within the first crediting period.

The project activity was implemented and WTGs are commissioned as described in the registered PDD /3/.

On the basis of site visit, interview and the reviewed project documentation along with documentary evidences, it can be confirmed that the project implementation is in accordance with realized technology. The monitoring and sustainable development indicators parameters are also monitored as per the registered PDD and GS passport and found to be appropriate.

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

Estimated Emission Reduction as per Registered/Approved PDD/3/:	220,293 tCO ₂ e
Actual Emission Reduction for the Monitoring Period	214,170 tCO ₂ e
Is any increase of CER's occurred?	No
Reason for Increase of CER's	NA

In summary, verification team confirms that overall actual emission reduction is lower than the estimate of the registered for the current monitoring period. The vintage wise break-up of the emission reductions are as given below:

Item	Values estimated in ex ante calculation of registered PDD	Actual values achieved during this monitoring period (01.01.2015 to 31.03.2016)
Emission reductions or GHG removals by sinks (t CO ₂ e)	220,293	214,170
Year 2015	176,331	181,724
Year 2016	43,962	32,446

The emission reduction for the year 2015 is found to be 3.06% higher than the estimated ERs in the PDD. This attributed to the machine usage as against the estimated during the validation. And the machine usage and availability is seen to be higher during the peak seasons post April 2015 to Oct 2015, which has contributed to this increase. It is also checked that even with this increase in the PLF the project bench mark is not crossed as explained by the PP, hence the increase of ERs is acceptable.

In 2016 the estimated ERs are more than the actual by nearly 26.19%. The reductions in the generation here is attributed to the lean no wind period than that was actually estimated. Hence, the justification is acceptable.

Otherwise, verification team considers the project description of the project contained in the registered PDD and GS passport to be complete and accurate. Monitoring plan is in compliance with the monitoring methodology including applicable tool(s)

Discussion:

The ex-ante parameters and their values were checked and found to be in line with the PDD. The verification team reviewed the monitoring plan stated in the monitoring report and conducted an on-site visit so as to (i) verify the compliance of the monitoring with the monitoring plan contained in the registered and (ii) confirm the emission reductions and contributions to sustainable development during the indicated monitoring period.

The monitoring plan in the registered PDD applies the monitoring requirements of the methodology ACM0002 version 16.

Findings:

No finding has been raised.

Opinion:

The monitoring plan mentioned in the registered PDD is in line with the applied methodology i.e ACM0002 "Grid-connected electricity generation from renewable sources" Version 16.0. The monitoring mechanism is in line with the methodology and is effective and reliable.

3.3 Post registration changes, if any

This is the 1st periodic verification of registered GS project and after a thorough assessment during documents review, onsite visit and interview with the local stakeholders it can be concluded that there has not been any deviation and/or revision of the registered monitoring plan. There were no changes during this monitoring period. The start date of the crediting period was changed before 1st monitoring period as per GS requirements.

3.4 Compliance of monitoring activities with registered monitoring plan

Discussion:

The monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD /3/.

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 parameter has been measured / determined without material misstatements.

The verification team reviewed the actual monitoring during the site visit and from document review and compared it against the requirements of the monitoring plan in the PDD /3/ and found inline

Monitoring of net electricity supplied:

In the project, two metering is done. One at generation site (either from through energy meter at pooling substation or through WTG controller) and another at the government substation .The reading of the bulk energy meter (installed at government substation) is recorded monthly by DISCOM and project O&M operator ie, ReGen and provide the readings in the Joint Meter Reading (JMR). Generation of the project WTGs is apportioned monthly by the O&M operator (ReGen) and provided in the share certificate.

The invoice is raised to DISCOM based on the generation details mentioned share certificate.

The accuracy class of energy meter installed at government substation for the measurement of electricity exported & electricity imported is 0.2 s which is verified during site visit. This energy meter is calibrated annually which is in accordance with the MPPMCL/CERC requirement.

The energy meters (main meter & check meter) are installed in the Govt. substation. The energy meters are sealed and are at the control of DISCOM.

The measurement and calculation method $EG_{facility,y}$ given in the MR is verified and found to be correct and in line with the PPA requirements. The net electricity is not only monitored for the GS purpose but it is the basis for the electricity billing to the state utility. The apportioned reading mentioned in the monthly share certificate is used as the source for $EG_{facility,y}$ (ie., Quantity of net electricity supplied to the grid during the year y.) for ex-post emission reduction calculation.

In summary, the verification team is convinced of compliance of the monitoring plan with the requirements of the monitoring methodology of ACM0002, version 16. During the on-site assessment, the verification team interviewed the PP also confirmed that the monitoring arrangements described in the monitoring plan are correct.

Opinion:

During site visit, verification team visited the WTGs and interviewed the PP and stakeholders. Verification team finds no error in the monitoring records.

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

The monitored parameters of the project are in line with the registered PDD/3/ and the applied methodology. Brief descriptions of the monitored parameters are listed below:

Ex-Post Parameters:

3.5.1. Data/Parameter

Monitoring Parameter Requirement	Assessment/ Observation by the DOE
Data / Parameter: (as in monitoring plan of PDD):	$EG_{facility,y}$ - Quantity of net electricity supplied to the grid during the year y

Applied value:	219,212 MWh
Unit:	MWh
Measuring frequency/Time Interval:	Continuous
Reporting frequency:	Monthly
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes
Type of monitoring equipment:	The electricity exported & imported are measured by Energy meter installed at substation. Two sets of energy meters (main & check) installed
Is accuracy of the monitoring equipment as stated in the PDD? If the PDD does not specify the accuracy of the monitoring equipment, does the monitoring equipment represent good monitoring practise?	Yes (0.2S)
Calibration frequency /interval: Is it Board guidance / local or national standards / manufacturers specification	Yearly once. The previous calibrations have been conducted on 24/06/2014 & 28/04/2015 and The last calibration has been done on 11/2/2016.
Is the calibration interval in line with the monitoring plan of the PDD? If the PDD does not specify the frequency of calibration, does the selected frequency represent good monitoring practise?	The calibration is required to done on annual basis. It is noted that the WTGs have been installed and the meters have been checked by the Transmission Company in April 2015. The PP has calibrated the meter in Feb 2016 and valid until Feb 2017.
Company performing the calibration:	MP Power Management Company Limited (MPPMCL)
Did calibration confirm proper functioning of monitoring equipment? (Yes / No):	Yes
Is (are) calibration(s) valid for the whole reporting period?	Yes
If applicable, has the reported data been cross-checked with other available data?	Yes
How were the values in the monitoring report verified?	Crosschecked with the PDD/3/ and found to be correct.
Does the data management (from monitoring equipment to emission reduction calculation) ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Yes
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?	NA

In summary, covering the entire monitoring period, the calibration has been considered for years 2015 and 2016. The project activity has been commissioned on phase wise, and for the monitoring period the installation had not been full capacity in 2015 and the later by year the capacity installations have been done, hence the calibration frequency is ok, The verification team confirms that all the ex-post parameter is monitored in accordance with the approved monitoring plan and applied methodology.

For Contributions to Sustainable Development

The verification team checked the sustainable development indicator parameters during the site visit and interview. Following Include the discussion on any additional parameters that are monitored in accordance with the monitoring plan for sustainability indicators as referred in the revised Gold Standard Passport and monitoring report.

DoE confirms that this is appropriate as though project does not positively impact this parameter, it does not have negative impact either.

As per the sustainability monitoring plan in the approved revised GS passport, verification team evaluate all sustainable development indicators as followed table:

No	Indicator	Chosen parameter in the registered GS Passport and monitoring report	Way monitoring of	Verification Team's opinion	Verified score
1	Air quality	CO ₂ emission reduction and reduction in dust generation	Project logbook, O&M policy and interview with O&M team	During on-site audit, the verification team visited the WTG sites, verified log book records, O&M records and interviewed O & M team where series of questions were asked for this parameter. Apart the challenges faced during the construction stage, the verification team considers that the project brings positive impact to the air quality as the project avoid electricity from grid, air pollutants such as CO₂, NO_x and SO_x are reduced during the project operation period by replacing electricity generated from fossil fuel fired power plants. This is a progressive improvement compared with the baseline situation. On commissioning the dust generation does not happen in the project site. It is noticed some maintenance vehicle movement may create some dust generation, which is very negligible. Hence, it is deemed accepted that the dust generation is reduced to minimal during operation phase. Therefore verification team accepts the score of the indicator "air quality" as positive.	+ (Positive)
2	Quality of employment	Training provided to employees & O&M staffs	1. HSE Training Record 2. Regular Drill Record 3. Handling of Equipment Training 4. Soft Skill Training	During on-site audit, the verification team visited the WTG sites, verified training records and confirmed the same by interviewing the O & M staffs. As informed by the O&M operators the following trainings were provided: HSE training, Regular drill, handling of equipment, soft skill. The verification team considers that the project activity brings positive impact to the quality of employment through above	+ (Positive)

				mentioned trainings. Therefore verification team accepts the score of the indicator as positive.	
3	Livelihood of the poor	Health Camps, Knowledge and information dissemination regarding natural disasters.	CSR activities like: 1) Distribution of furniture to schools (Chairs, stools and benches) 2) Construction of Toilets at school for both Girls and boys 3) Health camp at the villages of Devgarh,	During on-site audit, the verification team visited the WTG sites, verified the complete list of CSR activities undertaken by PP through photographic evidences and discussion with concerned beneficiaries (in schools, villages). The verification team accepts that the project activity brings positive impact to the livelihood of the poor through above mentioned CSR activities. Therefore verification team accepts the score of the indicator as positive.	+ (Positive)
4	Access to affordable and clean energy services	Net electricity supplied to grid	Electricity generation records (Joint meter readings and share certificates)	During on-site audit, the verification team visited the WTG sites, and verified the energy electricity generation records (Joint meter readings and share certificates). The verification team accepts that the project activity uses clean energy source (i.e. wind power) to generate electricity and increases the share of clean energy in the local grid. Though, the electricity is delivered to the power grid and would not directly increase its access to the local people, it will increase the share of clean energy in the grid. Therefore verification team accepts the score of the indicator as positive.	+ (Positive)
5	Quantitative employment and income generation	1. Cost spent for O&M 2. Number of O&M staffs involved in the project	Plant employment records	During on-site audit, the verification team visited the WTG sites, and verified the plant employment records. As the project has created qualitative employment and income generation through appointment of O& M staffs, the verification team accepts the score of the indicator as	+ (Positive)

				positive. There is a progressive increase in Number of jobs created for the implementation of the project activity.	
6	Technology transfer and technological self-reliance	1. Activities that build usable and sustainable know-how in a region/country for a technology, where know-how was previously lacking. 2. The penetration of wind energy technology is prominent in India and there is no technology transfer involved for the project activity.	1. HSE Training Record 2. Regular Drill Record 3. Handling of Equipment Training 4. Soft Skill Training	During on-site audit, the verification team visited the WTG sites. As informed by the O&M operators the following trainings were provided: HSE training, Regular drill, handling of equipment, soft skill. It has been verified that the training programs have been conducted for the employees only and not for the village people. Hence the verification team accepts the rating as neutral	0 (neutral)
7.	Soil Erosion	Any change in top soil around the establishment of project.	The O&M log book records for all the parameters as listed: 1) Hazardous waste generated, disposed, any spillages 2) Waste oil generated, disposed, any spillages 3) Leakage of any diesel or waste oil	During on-site audit, the verification team visited the WTG sites, verified O&M log book records and interviewed the local villagers As per the record, there is no incidence of oil leakage or inappropriate disposal of hazardous or waste oil. As the records show no impact, the verification team accepts the rating as neutral	0 (neutral)
8.	Maintenance of Landscape visual impact	Aesthetics	Project Grievance register and interview with local villagers	During on-site audit, the verification team visited the WTG sites, verified grievance register and interviewed the local villagers As per the record, there is no significant visual impact observed and no grievances received. As the records show no impact, the verification team accepts the rating as neutral	0 (neutral)
9	Bird & Bat Deaths	Bird carcass count	Bird Strike register, or	During on-site audit, the verification team visited the	0 (neutral)

			interview with local villager	WTG sites, verified the bird strike register and interviewed the local villagers As per the record, there are no observed carcass in vicinity of the WTGs. However the death of birds by other reasons including prey and accidents has been observed which were not recorded. As the records show no impact, the verification team accepts the rating as neutral	
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In summary, verification team confirms that all the monitored sustainable development indicators are in accordance to the approved Passport and PDD. It is also confirmed that all three categories (ie, Environment, Social Sustainability and Development and Economic and Technological Development) are mostly rated as positive hence the project fulfils the eligibility requirement.

Opinion:

The adequacy and compliance of the monitoring plan in the Monitoring report/1/ was found as per the requirements laid by the monitoring methodology and the registered PDD/3 and GS passport. The information flow (from data generation, aggregation, to recording, calculation and reporting) is already included under respective parameter above. The verification team has verified all the data and collected evidence as per the required monitoring frequency and found to be correct and appropriate meeting the requirements of the GS Passport, applied methodology and registered PDD.

3.5 Compliance with the calibration frequency requirements for measuring instruments

The main measuring instrument used in monitoring period is energy meters. This energy meter will be calibrated annually which is in accordance with the MPPMCL /CERC requirement which is found to be appropriate and in line with registered PDD /3/. The electricity exported & imported are measured by Energy meter installed at substation /14/.

Details	Main meter	Check meter
Meter Number	MPC65127	MPC65126
Make	Secure	Secure
Accuracy class	0.2S	0.2S
Location	Substation	Substation
Previous Calibrations	24/06/2014 & 28/04/2015	24/06/2014 & 28/04/2015
Last calibration	11/02/2016 (valid upto 10/02/2017)	11/02/2016 (valid upto 10/02/2017)

The meters have been checked and the calibration validity is checked from the calibration report of MPPTCL:

3.6 Data not monitored (ex ante or external parameters)

3.7.1. Data/Parameter

Parameter	$EF_{OM, y}$ - Operating Margin Emission Factor of NEWNE Grid
Default values used:	0.9862 tCO ₂ e/MWh
Purpose of data	Baseline emission Calculation
Source and Verification of the source	The operating margin emission factor is a 3-year generation-weighted average (2011-14) Data calculated to be 0.9862. The operating

	Margin is calculated ex ante and fixed during the crediting period
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3.7.2. Data/Parameter

Parameter	$EF_{BM,y}$ - Build Margin Emission Factor of NEWNE Grid
Default values used:	0.9495 tCO ₂ e/MWh
Purpose of data	Baseline emission Calculation
Source and Verification of the source	The Build Margin would be calculated ex ante and fixed during the crediting period. For ex ante calculation the most recent data (2013-14) available has been used and the build margin thus calculated is 0.9495.

3.7.3. Data/Parameter

Parameter	$EF_{CM,y}$ - Combined Margin Emission Factor of NEWNE Grid
Default values used:	0.9770 tCO ₂ e/MWh
Purpose of data	Baseline emission Calculation
Source and Verification of the source	Combined Margin Emission Factor has been calculated with the approved "Tool to calculate the emission factor for an electricity system" as weighted average of 75% of OM (three years average) and 25% of BM for the latest year.

Finding:

No finding has been raised.

Opinion:

The default values applied were found to be consistent with the registered PDD/3/.

3.7 Assessment of Data & calculation of GHG Emission Reductions

Discussion:

The Project Proponent submitted all the relevant data and parameters required to be monitored to the verification team along with the monitoring report. All the parameters required to be monitored are as per the registered PDD have been monitored and reported in the monitoring report. The verification team reviewed the calculation worksheet for the emission reduction calculation for the monitoring period 01/01/2015- 31/03/2016. Verification team confirms that the formulas, conversions, aggregations and factors are consistent with the monitoring plan in the PDD. The reported data was checked as follows:

- All the necessary data and all the parameters required to be monitored in the registered PDD were reviewed to ensure accuracy;

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The parameter and corresponding data was monitored in accordance with the monitoring plan and was available for verification for this monitoring period.

Against the Guidelines on the Applicability of Materiality in Verifications, , the verification team further assessed the materiality in verification on the project activity and interpreted as follows:

Reference	Requirement	Verification team assessment
Section 10	The CMP materiality decision prescribes the thresholds for the application of materiality in verifications, by defining that information is material if it might lead, at an aggregated level, to an overestimation	As per registered PDD, the estimated CERs of the project is 220, 293 tCO ₂ e annually, thus meets the item (c) of the para 10 in the Materiality guideline Therefore, the threshold for the

	of the total emission reductions or removals achieved by a CDM project activity equal to or higher than: (a) 0.5 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal of equal to or more than 500,000 tons of carbon dioxide equivalent per year; (b) 1 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal between 300,000 and 500,000 tons of carbon dioxide equivalent per year; (c) 2 per cent of the emission reductions or removals for large-scale project activities achieving a total emission reduction or removal of 300,000 tons of carbon dioxide equivalent per year or less; (d) 5 per cent of the emission reductions or removals for small-scale project activities other than project activities covered under subparagraph (e) below; (e) 10 per cent of the emission reductions or removals for the type of project activities referred to in decision 3/CMP.6, paragraph 38 (referred to as microscale project activities).	application of materiality in this verification is 2 per cent as per guideline
Section 24	The DOE should describe in its certification/certification report the risks, the risk assessment undertaken and how the verification and sampling plans were designed to respond to these risks and ensure that all material errors, omissions or misstatements were detected.	The risk assessment has been undertaken by the verification team by means of onsite physical inspection, stakeholder's interview and document review to all the raw data and cross-check data . Monthly joint meter readings and share certificates are authorised and issued by State Govt Agency MPPTCL. Also all the meters involved are sealed and calibrated annually. No sampling plan is required in the monitoring plan and the verification team is able to confirm that the parameter is properly monitored by the electricity meters automatically, the accuracy and the calibration of the meters is assured, all the data reported in the ER spread sheet has been completely verified against the raw data and cross-check with data invoices , the data management system and QA/QC process are carried out appropriately. Thus no material errors, omissions or mis-statements were detected by the verification team during the risk assessment.
Section 25	The DOE should also describe whether and how the verification and sampling plans were revised to take into account the need for further audit procedures due to the nature/type of errors, omissions or misstatements detected.	N/A, no sampling plan is required in the monitoring plan

Section 26	The DOE should also document how materiality was applied in determining whether a detected error, omission or misstatement was material or immaterial either individually or in aggregate.	N/A, as verified before, no material errors, omissions or misstatements were detected by the verification team during the risk assessment.
Section 27	The DOE should state in its certification/certification opinion that the claimed emission reductions or removals are free from material errors, omissions or misstatements, with a reasonable level of assurance.	Refer to Certification statement of this report.

The methods and formula used to obtain the baseline emissions are appropriate and in accordance with the monitoring plan.

Emission Reduction Due to Project Activity

Emission reduction = Baseline emission – Project emission – Leakage

According to ACM0002, the project emissions are zero.

According to ACM0002, there are no leakage emissions.

So, Emission Reduction = Baseline Emission

The baseline emission (BE_y in tCO_2e) is the product of the baseline emission factor ($EF_{grid,CM,y}$ in tCO_2e/MWh) times the electricity supplied to the grid by the project activity to the grid ($EG_{Facility,y}$ in MWh).

$$BE_y = EG_{Facility,y} \times EF_{grid,CM,y}$$

All the formulas used in the Spread sheet has been checked and found correct.

The verification team confirms that the emission reductions are real and measurable. All the monitored data is archived in electronic form.

All the figures as per the monitoring plan were cross-checked by the verification team against basic monitored data and the calculations were found to be correct.

The vintage wise break-up of the ERs are checked to be as given below:

Item	Values estimated in ex ante calculation of registered PDD	Actual values achieved during this monitoring period (01.01.2015 to 31.03.2016)
Emission reductions or GHG removals by sinks ($t CO_2e$)	220,293	214,170
Year 2015	176,331	181,724
Year 2016	43,962	32,446

Though the year 2015 shows increase of ERs by 3.06% and the year 2016 shows decrease of ERs by 26.19%, the same has been justified by the PP in the revised MR. However, in overall there is no overestimation of the emission reduction for the MR period..

Verified emission in this monitoring period:

Project emissions: 0 tCO₂ equivalents
Leakage Emissions: 0 tCO₂ equivalents
Baseline emissions: 214,170 t CO₂ equivalents
Emission reductions: 214,170 CO₂ equivalents (round down)

The verification team confirms the total emission reduction by the project activity for this monitoring period (01/01/2015 to 31/03/2016) is 214,170 tCO₂

Opinion:

The verification team confirms that

- a) The complete data set for the monitoring parameters was available as mentioned in the monitoring plan in the registered PDD for the duration of 01/01/2015 to 31/03/2016 (including both the days).
- b) The cross checks were undertaken for all the parameters indicated in the respective sections and were found complying with the requirements of the monitoring plan of the registered PDD;
- c) Appropriate methods and formulae for calculating baseline emission, project emissions and leakage have been followed ;
- d) The claimed emission reductions are free from material errors, omissions or mis-statements, with a reasonable level of assurance.

3.8 Quality of Evidence to Determine Emission Reductions

The evidences (Documents/interview/site visit) referred for verification of individual monitoring parameter and fixed parameters are defined section 3.5 and section 3.7 respectively. It can be confirmed by the assessment team that the reported emission reductions have been conservatively calculated. A list of referred documents for verification is also included in section 6 of this report.

3.9 Management System and Quality Assurance

Verification team evaluated the management systems in place to implement the monitoring of the project activity. This included the organizational structure, roles and responsibilities, data collection, transfer and aggregation procedures, training of personnel, data storage and archiving and emergency procedures for the monitoring system. On the basis of onsite interview with the employee of Orange Mamatkhedha Wind Private Limited, involved in the project monitoring and data collection, inspection of data storage log book & equipment's and document review. Verification team can confirm that the responsibilities and authorities for monitoring and reporting are appropriate and effective for the project type and hence in accordance with monitoring plant of the registered PDD and applied monitoring methodology.

4. RECOMMEDATIONS / FORWARD ACTION REQUEST

No FAR has been raised during this monitoring period.

5. VERIFICATION & CERTIFICATION STATEMENT

KBS Certification Services Pvt. Ltd. has been contracted by Orange Mamatkhedha Wind Private Limited to undertake independent verification and certification for the greenhouse gas (GHG) emission reductions reported from the project '100.5 MW Wind Power Project in Madhya Pradesh, India' GS ID. 3969 for the monitoring period 01/01/2015 to 31/03/2016 in the Monitoring Report Version 01 (first version) dated 28/04/2017.

The verification is based on the registered PDD, registered GS Passport and the monitoring report of this project. Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakech accord, as well as those defined by the Gold Standard Board.

The management of the Orange Mamatkhedha Wind Private Limited is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project Final Monitoring Report Version 1.3 dated 13/10/2017. The calculation and determination of GHG emission reductions from the project is the responsibility of the management of Orange Mamatkhedha Wind Private Limited. The development and maintenance of records and reporting procedures are in accordance with the Monitoring Report Version 01.3 dated 13/10/2017.

It is our responsibility to express an independent GHG verification opinion on the GHG emissions and on the calculation of GHG emission reductions from the project for the monitoring period 01/01/2015 to 31/03/2016 based on the reported emission reductions in the Final Monitoring Report Version 1.3 dated 13/10/2017 for the same period.

Based on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these, KBS planned and performed our work to obtain the information and explanations that we considered necessary to provide sufficient evidence for us to give reasonable assurance that this reported amount of GHG emission reductions for the period is fairly stated.

KBS confirms the following;

Reporting period:

From Version 1.3 dated 13/10/2017, **verified and certified emission in the above reporting period:**

Item	Values estimated in ex ante calculation of registered PDD	Actual values achieved during this monitoring period (01.01.2015 to 31.03.2016)
Emission reductions or GHG removals by sinks (t CO ₂ e)	220,293	214,170
Year 2015	176,331	181,724
Year 2016	43,962	32,446

The total ERs are as below:

	Amount	Unit
Gold Standard Voluntary emission reductions (GS VERs)	214,170	tCO ₂ e

Location: Faridabad

Date: 13/10/2017



Kaushal Goyal
Managing Director



KBS Certification Services Pvt. Ltd.

6. REFERENCES

No.	Author	Title	References to the document	Provider
1	OMWPL	GS Monitoring Report,	Version 01, dated 28/04/2017	OMWPL
	OMWPL	GS Monitoring Report	Version 01.1, dated 10/07/2017	OMWPL
	OMWPL	GS Monitoring Report	Version 01.2, dated 03/10/2017	OMWPL
	OMWPL	GS Monitoring Report	Version 01.3, dated 13/10/2017	OMWPL
2	OMWPL	ER Calculation Sheet	Version 01, dated 28/04/2017	OMWPL
	OMWPL	ER Calculation Sheet	Version 01.1, dated 13/10/2017	OMWPL
3	OMWPL	Registered PDD	Version 2.1 dated 14/03/2016	Publically available
4	Gold Standard	GS Sustainable passport		Publically available
5	Gold Standard	GS Project page	https://mer.markit.com/br-reg/public/project.jsp?project_id=103000000009191	Publically available
6	UNFCCC	ACM0002 “Grid-connected electricity generation from renewable sources”	Version 16	Publically available
7	IPCC	1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book	Web link	Publically available
8	UNFCCC	Kyoto Protocol (1997)	Web link	Publically available
9	TUV Rheinland	Validation Report.	version_01 dated 31/03/2016	Publically available
10	UNFCCC	CDM Project Standard	Version 9.0	Publically available
11	UNFCCC	Standard: Sampling and surveys for CDM project activities and programme of activities	Version 05	Publically available
	UNFCCC	Guidelines for sampling and surveys for CDM project activities and programme of activities	Version 04	Publically available
12	UNFCCC	CDM Validation and Verification Standard	Version 09	Publically available
13	UNFCCC	Glossary “CDM terms”	Version 08	Publically available
14	OMWPL	WTGs basic record set: - Commissioning Certificates - Power Purchase Agreements	All WTGs of this project	OMWPL

		- Purchase orders - Calibration reports from MPPTCL		
15	OMWPL	Share certificates and Joint meter readings	Entire monitoring period	OMWPL
16	OMWPL	Log book records	Entire monitoring period	OMWPL
17	OMWPL	Training Records: 1. HSE Training Record 2. Regular Drill Record 3. Handling of Equipment Training 4. Soft Skill Training	Entire monitoring period	OMWPL
18	OMWPL	CSR records and photographic evidence.	Entire monitoring period	OMWPL
19	OMWPL	Employment records	Entire monitoring period	OMWPL
20	OMWPL	O& M records	Entire monitoring period	OMWPL
21	OMWPL	Grievance register	Entire monitoring period	OMWPL

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7. FINDINGS DOCUMENT

Summary of findings	CL 03	CAR 03	FAR -
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Corrective Action Requests (CARs) for this Verification

CAR ID	01	Section no.	MR-page 1	Date : 19-05-2017
Description of CAR				
Start date of the monitoring period does not match with the retroactive crediting period start date mentioned in the validation report. Clarify?				
Project participant response				Date: 22/05/2017
The retroactive start date mentioned in the MR is as per the maximum eligibility of the project to claim GS VERs. The DoE is provided a copy of communication with GS about the registration date. The date under validation report was mentioned under the impression that the registration date awarded to the project would be 01.04.2017. Hence, it was mentioned so. However, post registration of the project the registration date awarded to the project was 01.01.2017, hence the PP has taken the monitoring period from 01.01.2015 maximum as applicable.				
Documentation provided by project participant				
<i>GS registration details</i>				
DOE assessment				Date: 10/07/2017
It has been checked that the project was registered with GS on 01/01/2017. As the project is eligible to claim 2 years retro credits, the PP has chosen crediting period start date from 01/01/2015. Thus the start date of the crediting period as 01/01/2015 is acceptable to the verification team. The finding is closed.				

CAR ID	02	Section no.	MR-section D.1	Date : 19-05-2017
Description of CAR				
Section D.1 of MR does not mention about all the ex-ante parameters listed under section B.6.2 of the PDD?				
Project participant response				Date: 22/05/2017
The parameters under section D.1 has been updated to include the parameters of OM & BM. It is inline with the registered PDD.				
Documentation provided by project participant				
<i>Revised MR</i>				
DOE assessment				Date: 10/07/2017
The revised MR has been checked to have included all the ex-ante parameters as per PDD and the values were found to be correct. The finding is closed.				

CAR ID	03	Section no.	MR-section D.3	Date : 19-05-2017
Description of CAR				
Applicable to all SD parameters: 1. The contents mentioned under each SD parameter are not in line with those descriptions mentioned in the passport. 2. Current situation of the parameter needs to be explained. 3. The outcome of the project whether it has positively or neutrally or negatively impacted each SD parameter needs to be explained. 4. Mention the name of the records submitted to DOE 5. There is mismatch in the numbering of indicators. Rectify				
Project participant response				Date: 22/05/2017
1. All the SD parameters have been checked to keep them consistent with the description as provided under the registered passport. 2. Current situation under each parameter has been elaborated including the impact including score of positive, neutral or negative. 3. The score of each parameter has been provided under the revised description under section D.3 of the MR. 4. The name of records for each parameter has been updated now. 5. The revised MR has been checked for numbering of indicator and corrections have been made.				
Documentation provided by project participant				
Revised MR				
DOE assessment				Date: 10/07/2017
1. The revised MR was checked. The contents mentioned under each SD parameter are in line with the Gold standard Passport. 2. Current situations of each parameter have been verified during site visit and checking of documents and found to be OK 3. PP has briefed about of the project outcome on each parameter which was checked to be acceptable. 4. The sources are properly mentioned in the revised MR. All the proofs were verified to be correct. 5. The numbering of indicators are corrected in revised MR. The finding is closed				

Clarification Requests (CLs) for this Verification:

CL ID	01	Section no.	MR-section C	Date : 19-05-2017
Description of CL				
Clarify why the generations of January to March 2015 have been taken into account for ER calculations				
Project participant response				Date: 22/05/2017
The generations from Jan to March 2015 has been taken into account for calculation of ER as the start date of the project is considered to be 01.01.2015 based on the registration date for the project (01.01.2017). The date under validation report was mentioned under the impression that the registration date awarded to the project would be 01.04.2017. Hence, it was mentioned so. With the GS awarding the registration from 01.01.2017, the PP is eligible to claim 2 years retro GS VERs and has included the months of Jan to March 2015.				
Documentation provided by project participant				
GS registration details				
DOE assessment				Date: 10/07/2017
Since the crediting period start date is accepted from 01/01/2015, the generations from the same date are also acceptable. The finding is closed.				

CL ID	02	Section no.	MR section D.2	Date: 19-05-2017
Description of CL				
The source of data under the monitoring parameter EG _{facility,y} not in line with the PDD as the later mentions about share certificate also?				
Project participant response				Date: 22/05/2017
<i>The description under the parameter EG_{facility,y} has been updated to include the share certificate provided by ReGen. It is now in line with the validation report.</i>				
Documentation provided by project participant				
<i>Revised MR</i>				
DOE assessment				Date: 10/07/2017
The revised MR has been checked. The source of data under the monitoring parameter EG _{facility,y} is in line with the PDD . The sources have been verified to be correct. The finding is closed.				

CL ID	03	Section no.	MR section E.5	Date: 19-05-2017
Description of CL				
Mention the monitoring period				
Project participant response				Date: 22/05/2017
The monitoring period has been updated in the table under section E.5				
Documentation provided by project participant				
<i>Revised MR</i>				
DOE assessment				Date: 10/07/2017
The monitoring period is correctly added in section E.5 of revised MR. The finding is closed.				

8. CERTIFICATE OF COMPETENCE

Personnel Name:		M P Kanal	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☒
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources		
Energy Demand	TA 3.1: Energy Demand		
Waste handling and disposal	TA 13.1. Solid waste and wastewater		
Agriculture	TA 15.1. Agriculture		
Approved by (Manager C & T)	Gagandeep Kakkar		
Approval date:	03/11/2015		

Personnel Name:		Sanjay Kandari	
Qualified to work as:			
Team Leader	☒	Technical Expert	☒
Validator/Verifier	☒	Financial Expert	☒
Technical Reviewer	☒	Local Expert (India)	☒
Area(s) of Technical Expertise			
Sectoral Scope	Technical Area		
Energy Industries (renewable/non-renewable sources)	TA 1.1: Thermal energy generation from fossil fuels and biomass including thermal electricity from solar		
Energy industries (renewable/non-renewable sources)	TA 1.2: Energy generation from renewable energy sources		
Energy demand	TA: 3.1: Energy Demand		
Waste Handling and Disposal	TA 13.1 Waste Handling and Disposal TA 13.2 Manure		
Approved by (Manager C & T)	Akhilesh Joshi		
Approval date:	11/12/2015		

History of the document

Version	Date	Nature of revision	Reviewed by	Approved by
4.0	14/12/2013	Guidance	Manager CDM Quality	Managing Director



		included/improved	23/12/2013	23/12/2013
3.1	29/10/2012	Updated for EB69 Annex6	Manager CDM Quality 29/10/2012	Managing Director 29/10/2012
3.0	31/08/2012	Revised for VVS Track	Manager CDM Quality 08/09/2012	Managing Director 10/09/2012
2.0	21/12/2011	Comprehensively revised	Manager CDM Quality 21/12/2011	Managing Director 21/12/2011