



“BUNDLED WIND POWER PROJECT BY GIRIRAJ ENTERPRISES”

Document Prepared By:



VKU Certification Pvt. Ltd.

Regd. Off: Flat No. 306, Sky Star, N-1, New Rani Bagh Khandwa Road, Indore, Madhya Pradesh, India - 452020

URL: <http://vkucertification.com>

E-mail: info@vkucertification.com

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Prepared By	VKU Certification Pvt. Ltd.
Contact	Regd. Off: Flat No. 306, Sky Star, N-1, New Rani Bagh Khandwa Road, Indore, Madhya Pradesh - 452020 URL: http://vkucertification.com E-mail: info@vkucertification.com
Approved By	Dr. Vikas Kumar Aharwal (Founder and Director) vikas.aharwal@vkucertification.com
Work Carried Out By	Rakesh Chouhan - Team Leader cum Technical Expert TA 1.2 Sanjay Kumar- Technical Reviewer cum Technical Expert TA 1.2

Summary:

M/s VKU Certification Pvt. Ltd. (here after referred as VKU) was commissioned by M/s EKI Energy Services Limited, to perform the seventh verification of the greenhouse gas emission reductions reported for the project activity “Bundle Wind Power by Giriraj Enterprises.” (VCS ID 1669) in India, covering monitoring period from 01-July-2021 to 31-March-2022(Inclusive of both start and end dates) under 1st crediting period¹ from 31-March-2015 to 30-March-2025 (Inclusive of both start and end dates) with regard to the relevant requirements for VCS activities.

The objective of the verification is to have an independent review of ex-post determination of the monitored reductions in GHG emission reductions and verify that the monitoring methodology was implemented according to the monitoring plan and monitoring data used to confirm the reductions in anthropogenic emissions by sources is sufficient, definitive and presented in a concise and transparent manner.

The verification scope of the project is:

- To verify that the project is implemented as described in the registered VCS Joint PD&MR.

¹ Crediting period is renewable twice as per registered VCS Joint PD&MR version 02 dated 28-March-2016

- To assess the project's compliance with other relevant rules including the host country legislation.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions without any double counting.
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.
- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- To verify that reported GHG emission data is sufficiently supported by evidence.

Verification was conducted using VKU's procedures in line with the requirements specified in the VCS program guide version 4.2/4/, VCS standard Version 4.3/5/, VCS validation and verification manual version 3.2/21/, CDM M&P, the latest version of the CDM Validation and Verification Standard 3.0/22/, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques. The verification consisted of desk review, on-site and remote site assessment and the resolution of outstanding issues and the issuance of the final verification report and certification.

VKU followed the rule-based approach to perform this verification. During the course of verification, related to operation, monitoring and GHG emission reduction calculation of the VCS project activity in relation to all relevant VCS requirements for the project activity and the applied baseline and monitoring methodology and a total of 06 findings were raised, which includes: 05 Corrective Action Request (CAR); 01 Clarification Requests (CL). All the raised findings were raised and successfully resolved by the PP. The same has been discussed in Appendix B of this verification report.

The verification team ensured that the reported emission reductions are complete and accurate in accordance with applicable VCS requirements in order to be certified therefore the verification team has detected no further uncertainties

The GHG emission reductions were calculated on the basis of the approved methodology Approved Consolidated Methodology (ACM0002) "Grid-connected electricity generation from renewable sources - Version 17.0/7/ and the monitoring plan included in the registered VCS Joint PD&MR version 02 /3/dated -28-March-2016

In conclusion, it is VKU's opinion that the project activity "Bundled Wind Power Project by Giriraj Enterprises." (VCS ID 1669) in India' meets all relevant requirements for VCS standard and guidelines and correctly applies the baseline and monitoring methodology Approved Consolidated Methodology (ACM0002) "Grid-connected electricity generation from renewable sources - Version 17.0/7/ The monitoring system is in place and the emission reductions are calculated without material misstatement. Hence, VKU is able to certify that the emission reductions from the project during the current monitoring period from 01-July-2021 to 31-March-2022(Inclusive of both start and end dates) under the 1st crediting period from 31-March-2015 to 30-March-2025 amount to 106,103 tCO₂e.

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1 INTRODUCTION

1.1 Objective

M/s EKI Energy Services Limited Commissioned M/s VKU Certification Pvt Ltd (hereafter referred as VKU) to carry out seventh verification of the project “Bundled Wind Power Project by Giriraj Enterprises” (VCS ID 1669) project in India for the period from 01-July-2021 to 31-March-2022 (Inclusive of both start and end dates) under 1st crediting period from 31-March-2015 to 30-March-2025.

This report summarizes the findings of the verification of the project, performed on the basis of VCS Requirements and UNFCCC criteria for CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The objective of the verification is to have an independent evaluation of a project activity by an accredited validation and verification body against the requirements of the VCS program guide version 4.2/4/, VCS standard version 4.3 /5/and GHG program applied, on the basis of the registered project design document.

The verification is for the period from 01-July-2021 to 31-March-2022 (Inclusive of both start and end dates) under 1st crediting period from 31-March-2015 to 30-March-2025 (Including both dates).

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 VCS Joint project description & monitoring report 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 data is recorded and stored as per the monitoring methodology and approved monitoring plan.
- To confirm that the monitoring system is implemented and fully functional to generate Verified Carbon Units (VCUs) without any double counting,
- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.

1.2 Scope and Criteria

The verification scope is:

- To verify that the project is implemented as described in the registered VCS Joint PD&MR.
- To assess the project's compliance with other relevant rules including the host country legislation.
- To confirm that the monitoring system is implemented and fully functional to generate voluntary emission reductions without any double counting.

- To establish that the data reported are accurate, complete, consistent, transparent and free of material error or omission by checking the monitoring records and the emissions reduction calculation.
- To verify that actual monitoring systems and procedures are in compliance with the monitoring systems and procedures described in the monitoring plan;
- To evaluate the GHG emission reduction data and express a conclusion with a reasonable level of assurance about whether the reported GHG emission reduction data is free from material misstatement;
- To verify that reported GHG emission data is sufficiently supported by evidence.

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

The project is assessed against the requirements of VCS standard version 4.3/5/, VCS program guide version 4.2/4/, VCS validation and verification manual version 3.2/21/ and related rules and guidance. VKU has, based on the recommendations in the latest version of CDM Validation and Verification Standard/22/, VCS validation and verification manual version 3.2/21/ employed a rule-based approach (as criteria) in the verification, focusing on the identification of significant reporting rules and the reliability of project monitoring.

Verification is not meant to provide any consultancy towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring.

1.3 Level of Assurance

All the revisions of the verification report before being submitted to the client were subjected to an independent internal technical review to confirm that all verification activities had been completed according to the pertinent VKU's procedure, with a reasonable level of assurance. The technical review was performed by a technical reviewer(s) qualified in accordance with VKU's qualification procedure. The verification team and the technical reviewers consist of the following personnel:

Role/Qualification	Last Name	First Name
VCS Team Leader & Technical Expert 1.2	Chouhan	Rakesh
Technical Reviewer & Technical Expert 1.2	Kumar	Sanjay

1.4 Summary Description of the Project

The project activity involves electricity generation by wind turbine generators and supplying the generated electricity to the unified Indian Grid. The project being a renewable energy generation activity, it leads to removal of fossil fuel dominated electricity generation. The project activity results in reductions of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and also plays beneficial role in the mitigation of climate change.

The total installed capacity of the project is 84 MW. The project activity employs Wind Turbine Generators (WTGs) in in Madhya Pradesh and Gujarat states of India. The project activity employs Regen power tech make (56-WTGs (Wind Turbine generators). The project was commissioned on 31-March-2015 which is the earliest date of commissioning of the windmill of the project activity and run satisfactorily since then except the decrease in capacity of the project from time to time as explained in section 3.3 of this report.

The purpose of the project activity is generation of clean electricity by utilizing kinetic energy of wind. As per MR, the electricity generated from the project is supplied to the unified Indian Grid which is confirmed from registered VCS Joint PD&MR/3/, previous verification reports /29/ and interview with PP/26/. The WTGs are commissioned between 31-March-2015 to 31-March-2017 and the dates of the WTGs are verified against the registered VCS Joint PD&MR /3/ and commissioning certificates/13/.

This information was verified during on site and remote assessment and found to be in line with the details provided in the registered VCS Joint PD&MR/3/ “Bundled Wind Power Project by Giriraj Enterprises”. The emission reductions from the project activity during the current verification period 01-July-2021 to 31-March-2022 (including both start and end date) amount to 106,103 tCO₂e.

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification was conducted using VKU’s procedures in line with the requirements specified in the VCS Requirements, i.e., VCS Program Guide 4.2 /4/, VCS standard version 4.3/5/. The GHG emission reductions are on the basis of the approved Baseline and monitoring methodology Approved Consolidated Methodology (ACM0002) “Grid-connected electricity generation from renewable sources - Version 17.0/7/.

The verification consisted of the following three phases

- Document review;
- On-site and remote assessment including Interviews and actual project scenario;
- Resolution of any Material Discrepancy and the issuance of the final verification report and certification.

The following sections outline each step in more detail.

2.2 Document Review

The monitoring report (MR) version 01 of 19-May-2022, version 02 of 12-July-2022, version 03 of 24-August-2022, version 3.1 of 09-September-2022 and version 03.2 of 22-September-2022 and final version 4.0 of 28-September-2022/1/, the emission reduction calculations spreadsheet version 01 of 13-May-2022 and final version 2.0 of 28-September-2022/2/, were assessed as part of the verification. In addition, the registered VCS Joint PD&MR /3/ in particular the baseline estimations and the monitoring plan for the project was reviewed. The following table lists the documentation that was reviewed during the verification:

/1/	EKI: VCS monitoring report for “Bundled Wind Power Project by Giriraj Enterprises, • Version 01 of 19-May-2022, • Version 02 of 12-July-2022, • Version 03 of 24-August-2022, • Version 3.1 of 09-September-2022 • Version 03.2 of 22-September-2022 • Final version 4.0 of 28-September-2022
/2/	EKI: Emission Reduction Calculation Spreadsheet, version 01 of 13-May-2022 and final version 2.0 of 28-September-2022
/3/	EKI: Registered VCS Joint PD&MR for the project “Bundled Wind Power Project by Giriraj Enterprises” version 2.0 28-March-2016
/4/	VCS: VCS Program Guide, version 4.2 of 22-June-2022
/5/	VCS: VCS Standard, version 4.3 of 22-June-2022
/6/	VCS: Monitoring report Template VCS Version 4.1
/7/	CDM Executive Board: Baseline and Monitoring Methodology Approved Consolidated Methodology (ACM0002) “Grid-connected electricity generation from renewable sources” - Version 17.0
/8/	UNFCCC: Project search: https://cdm.unfccc.int/Projects/projsearch.html
/9/	Gold Standard Foundation: https://registry.goldstandard.org/projects?q=&page=1
/10/	Monthly JMR issued by state utility i.e., GUVNL (Gujarat Urja Vikas Nigam Limited) and MPPKVCL, (Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd) to PP state for the current verification period (01-July-2021 to 31-March-2022)
/11/	Certificates of Calibration for all the meters that belongs to project activity
/12/	Invoice issued by PP to state utility i.e., GUVNL (Gujarat Urja Vikas Nigam Limited) and MPPKVCL, (Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Ltd)
/13/	Commissioning certificate of all the WTGs of the project activity issued by state electricity authority
/14/	Power Purchase Agreements signed between; - • M/S Giriraj Enterprises & GUVNL for 10.5 MW wind power project at village Kumbhariya, District Morbi dated 18-November-2016 • M/S Giriraj Enterprises & MPPMCL for 15 MW wind power project at villages in district of Mandsaur and Ratlam dated 24-September-2015 • M/S Giriraj Enterprises & MPPMCL for 15 MW wind power project at villages in district of Mandsaur and Ratlam dated 13-October-2015 • M/S Giriraj Enterprises and M/S D.J. Malpani & MPPMCL for 15 MW wind power project at villages Naugaon, Labrawada& Kalukhedi in Dhar district dated 12-September-2019 • M/S Giriraj Enterprises and M/S D.J. Malpani & M/S Santradevi H. Biyani & M/S KshemaPower and Infrastructure Company Pvt. Ltd. & MPPMCL for 15 MW wind power project at villages Naugaon, Labrawada& Kalukhedi in Dhar district, Madhya Pradesh dated 12-September-2019 • M/S Giriraj Enterprises & MPPMCL for 15 MW wind power project near Village Bhojpura, Devli, Ranayalkala and Senkali in Tahsil Tonk Khurd, District Dewas, Madhya Pradesh dated 06-October-2016

/15/	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period
/16/	Monthly generation reports issued by O&M contractor
/17/	Central Electricity Authority (Installation and Operation of Meters) Regulations Notified on 17/03/2006 <u>No. 502/70/CEA/DP&D</u> Amendments Notified on 26/June/2010 <u>No. 502/6/2009/DP&D/D-I</u>
/18/	Carbon Check (India) Private Ltd.: Joint Validation and verification report “Bundled Wind Power Project by Giriraj Enterprises” version 1.0 30-March-2017 covering monitoring period of; 31-March-2015 to 28-July-2017
/19/	Site Visit Photographs videos and attendance sheet dated 14-June-2022
/20/	VERRA: https://registry.verra.org/app/projectDetail/VCS/1669
/21/	Validation and verification manual version 3.2 dated 19-October-2016
/22/	CDM Validation and Verification Standard version 3.0 dated 23-October-2021
/23/	Breakdown Details for current monitoring period from 01-July-2021 to 31-March-2022
/24/	Technical Specifications of WTGs
/25/	Grievance Register present on-site
/26/	On site and telephonic personnel interviews
/27/	GPS Google software used for location during onsite visit and Google earth for desk review of WTGs
/28/	REC website Renewable Energy Certificate Registry of INDIA https://www.recregistryindia.nic.in/index.php/publics/faqs
/29/	Previous Verification reports: - • Sixth verification report covering monitoring period dated (01-January-2021 to 30-June-2021) • Fifth verification report covering monitoring period dated (01-March-2020 to 31-December-2020) • Fourth verification report covering monitoring period dated (01-April-2019 to 29-February-2020) • Third verification report covering monitoring period dated (01-April-2018 to 31-March-2019) • Second verification report covering monitoring period dated (01-March-2017 to 31-March-2018)

/30/	Previous Monitoring reports - Sixth VCS monitoring report for “Bundled Wind Power Project by Giriraj Enterprises”, version 03 of 20-May-2021, - Fifth VCS monitoring report for “Bundled Wind Power Project by Giriraj Enterprises”, version 02 of 18-March-2021, - Fourth VCS monitoring report for “Bundled Wind Power Project by Giriraj Enterprises” , version 02 of 16-April-2020, - Third VCS monitoring report for “Bundled Wind Power Project by Giriraj Enterprises”, version 02 of 14-May-2019, - Second VCS monitoring report for “Bundled Wind Power Project by Giriraj Enterprises”, version 02 of 23June-2018,
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2.3 Interviews

An on-site and remote site inspection has been performed by the assessment team for Madhya Pradesh and Gujarat Sites respectively. However, the representatives of the PP and O&M contractors were interviewed personally and telephonically by assessment team on 14-June-2022 i.e., personnel responsible for monitoring of the project activity, data collection and management, and QA/QC procedure. The details of the people interviewed are mentioned in the table below.

An Onsite Inspection was conducted for 21 MW, Dhar Site in Madhya Pradesh on 14-June-2022 and details of personnel interviewed are listed below:

S.No.	Site	Name	Designation	Topic
1	Dhar	Vikrant Tiwade	A.M	Data archiving, breakdown details and maintenance of generation records
2		Siddhartha	Site Incharge	Project Implementation and technical details of the Project like breakdown details, calibration of meters and monitoring of required monitored parameters and implementation of QA/QC Procedure.
3		Dewantar	S.R. Engineer	
4		Shashikant Barik	S.R. Engineer	
5		Ankit Sethiya	EKI Energy	Project Implementation, records maintenance, QA/QC Procedure implementation at site

Local Stakeholder Interviewed at Dhar site in Madhya Pradesh are listed below: -

S.No.	Site	Name	Designation	Category	Topic
1	Dhar	Devendra	Security	Local Stakeholder	- Project activity implementation and its impact on social, economic and environmental condition of the local people. - The ongoing communication procedure and the address of their grievance by the project proponent - The employment generation due to project activity implementation.
2		Sandeep Kamdev	Driver		

A Remote site Inspection was conducted for 30 MW Hatuniya Site in Madhya Pradesh and 10.5 MW and 4.5 MW Vejalpar site in Gujarat on 14-June-2022 and details of personnel interviewed are listed below:

S.No.	Site	Name	Designation	Topic
1	Mandsaur	Chetram Saini	Operation and Management	Project Implementation and technical details of the Project like breakdown details, calibration of meters and monitoring of required monitored parameters and implementation of QA/QC Procedure.
2		Shashikant Barik	S.R. Engineer	
3		Ankit Sethiya	EKI Energy	
1	Vejalapar	Vikrant Tiwade	A.M	Data archiving, breakdown details and maintenance of generation records
2		Kunal Patel	Site In-charge	Project Implementation, records maintenance, QA/QC Procedure implementation at site
3		Kailash Bankar	DGM	Project Implementation, data management, recording, monitoring and archiving.
4		Shashikant Barik	S.R. Engineer	Project Implementation, records maintenance, QA/QC Procedure implementation at site.
5		Ankit Sethiya	EKI Energy	

The topics covered during interview ranges from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system and data collection, recording and archiving procedures. The assessment was drawn based on the feedback received during site visit coupled with the documentation.

Local Stakeholder Interviewed at Mandsaur and Vejalpar site in Madhya Pradesh and Guajrat are listed below: -

S.No.	Site	Name	Designation	Category	Topic
1	Mandsaur	Banti Malvi	Security	Local Stakeholder	- Project activity implementation and its impact on social, economic and environmental condition of the local people. - The ongoing communication procedure and the address of their grievance by the project proponent - The employment generation due to project activity implementation.
2		Shane pal Singh	Security		
1	Vejalpar	Narpat Singh Rathore	Security		
2		Ranjith Parmar	Driver		

The topics covered during interview ranges from general features and implementation of project to technical details of the project like calibration details, monitoring and measuring system and data collection, recording and archiving procedures. The assessment was drawn based on the feedback received during site visit coupled with the documentation.

There were no negative comments received during the stakeholder consultation interview conducted on site and remote site and more detail is enlisted in the section 4.2.2 below.

2.4 Site Inspections

An On-site and remote visit was undertaken by the verification team on 14-June-2022 at the Project site in Madhya Pradesh and Gujarat to carry out the following;

- An assessment of the implementation and operation of the registered project activity as per the registered VCS Joint PD&MR /3/and VCS MR/1/;
- A review of information flows for generating, aggregating and reporting the monitoring parameters.

- Interviews/26/ with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the VCS Joint PD&MR/3/
- A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, 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 PD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- A review of previous MR/30/ and verification reports /29/
- 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.

2.5 Resolution of Findings

The objective of this phase of the verification is to resolve any outstanding issues which need to be clarified for VKU's positive conclusion on the project description. To guarantee transparency a verification protocol has been customized for the project. The protocol shows in a transparent manner the requirements, means of verification and the results from verifying the identified criteria.

The verification protocol consists of three situations described below: -

A corrective action request (CAR) is raised if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions;
- Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable VCS requirements have been met.

In summary, 1 CL and 5 CARs were raised during this verification which were closed successfully and details are given under Appendix B of this report.

2.5.1 Forward Action Requests

Based on the review of the previous Verification reports /29/ and Joint validation & Verification report/18, no FAR was found that was raised which needs to be closed during this verification. Also no FAR is raised during current verification.

2.6 Eligibility for Validation Activities

VKU has not undertaken any validation activities as part of the verification and does not hold accreditation for validation of any relevant sectoral scope Hence this section is not applicable.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project is registered under VCS 1669 only. The project has not applied under any other GHG program except VCS, hence not applicable. This was confirmed through a declaration/15/ submitted by the PP. Simultaneously, Assessment team independently has also checked other GHG Program registry websites and searched for similar projects but could not find any similar project registered on other registry websites hence accepted by the assessment team. Audit team checked the REC Mechanism database/ 28/ of India and found that the project activity is not accredited / registered under REC mechanism. Further, declaration for the same is also checked and found correct by the assessment team. Also, assessment team checked the following registries to confirm the same.

The details of the registries checked are as follows:

1. <https://www.recregistryindia.nic.in/>
2. <http://cdm.unfccc.int/>
3. <http://www.goldstandard.org/>

Rejection by other GHG programs

The Project is not rejected by other GHG programs. A declaration/15/ for the same is checked and found correct by the assessment team Also assessment team has independently checked other GHG Program registry websites and searched for similar projects but could not find any similar project rejected by any other GHG Program.

The details of the registries checked are as follows:

1. <https://www.recregistryindia.nic.in/>
2. <http://www.goldstandard.org/>
3. <http://cdm.unfccc.int/>
4. <https://verra.org/verra-standards-and-programs/>

3.2 Methodology Deviations

There is no methodology deviation identified during the current monitoring period. Also, there were no methodology deviations identified during the previous verifications/29/ and Joint validation & Verification report/18/.

3.3 Project Description Deviations

Deviation 1

This deviation is related to total capacity of the project. At the time of registration, the total capacity of the project envisaged was 112.5 MW. Till 3rd verification (01-April-2018 to 31-March-2019) the capacity of the project was downsized to 96 MW. This is because of following reasons-

- a) The earlier, 13.5 MW capacity wind project by Giriraj Enterprises at Vejalpar site, Gujarat has been downsized to capacity of 12.0 MW; and
- b) The earlier, 15 MW capacity wind project by Giriraj Enterprises at Khareda site, Gujarat has been cancelled by PP and has not been commissioned.

Deviation 2

Further to this, the 3 MW (1.5 MW x 2) WTG from the total capacity of 12 MW at Vejalpar site, Morbi, Gujarat has been sold. The reason for this is due to the internal restructuring within the organization of Giriraj Enterprises. After that, the project capacity came down to 93.0 MW till 01-December-2020. Then the capacity in the same Vejalpar site has been further downsized to 6.0 MW from 9.0 MW because 3 MW (1.5 MW x 2) WTG from the total capacity of 6.0 MW at Vejalpar site, Morbi, Gujarat has been sold upon permission from Gujarat Energy, capacity of same Vejalpar site was downsized to 4.5 MW from 6.0 MW.

So, now the total capacity of the project stands at 90 MW in January-2021 and 88.5 MW from 01-February-2021.

Impact of additionality: At Vejalpar site, Gujarat at the time of investment decision making was 6.92% and the benchmark was 15.43%. Whereas, IRR for the downsized capacity of 12.0 MW comes to be 6.80% and the benchmark is 15.43%. With further downsizing capacity to 9.0 MW, the IRR stands at 6.46%. After downsizing the capacity in January 2021 to 6.0 MW, IRR comes out to be -3.51%. Again, after further the downsizing the capacity to 4.5 MW from February-2021 onwards, the IRR comes out to be -9.53% Equity IRR comes out to be based on the Supply & Service Agreement, Purchase orders/Contracts for the project activity including Supply, Erection and Commissioning and Land facilitation agreements signed between PP and EPC contractor.

Assessment team has checked the IRR sheet available on project webpage², where the benchmark and the impact of downsizing is calculated and from the analysis of this, it can be seen that after downsizing of the 13.5 MW project to 12 MW and further to 9 MW and then to 6 MW and 4.5 MW, the equity IRR is below the benchmark value. Hence, there is no impact on the project additionality.

Also, at the time of registration, 15.0 MW project was considered by Giriraj Enterprises at Khareda site, Gujarat. But the project was cancelled and the entire capacity did not get commissioned which does not have any impact on the project additionality. This was confirmed through desk review of previous verification report /29/ and previous Monitoring reports /30/.

Deviation 3

This deviation is related to the corrected Geo Coordinates of the project locations. At the time of registration, Latitude and Longitude has been mentioned in registered VCS Joint PD&MR/3/. But at the time of second verification (01-March-2017 to 31- March -2018) project verification, PP have observed some error in Latitude and Longitude. So, they have corrected this Latitude and Longitude in that monitoring period and since then, these updated Latitude and Longitude are used and verified by different DOEs in 2nd (01-March-2017 to 31-March-2018), 3rd (01-April-2018 to 31-March-2019), 4th (01-April-2019 to 29-February-2020) 5th (01-March-2020 to 31-December-2020) and 6th (01-January-2021 to 30-June-2021) verification period. However, PP

² <https://registry.terra.org/app/projectDetail/VCS/1669>

have requested this deviation in current monitoring period (01-July-2021 to 31-March-2022) and verified by assessment team during the onsite and remote audit/26/ using the GPS Google software and Google earth/27/.

Deviation 4

PP has requested a deviation related to total capacity of the project in current monitoring period (from 01-July-2021 to 31-March-2022). At the time of registration, the total capacity of the project was 112.5 MW. Till 6th verification (01-January-2021 to 30-June-2021) the capacity of the project was downsized to 88.5 MW. In present monitoring period 4.5 MW WTG of Vejalpar site has been removed due to unavailability of PPA. So, the present capacity of the project is 84 MW and the electricity generation from 4.5 MW site is not considered for emission reduction calculation following the conservative approach, so emission reduction values have decreased for current monitoring period and it has no impact on additionality of the project as analysed in the IRR sheet provided by PP. Thus, it is accepted by assessment team.

3.4 Grouped Project

This is not a grouped project. Therefore, this section is Not Applicable.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the onsite and remote audit with PP representative, it was concluded that the project is implemented as per the requirement of the registered VCS Joint PD&MR /3/and approved monitoring plan. The total capacity of the project activity in current monitoring period stands at 84 MW (56 WTGs × 1.50 MW) of of ReGen Power Tech. During the current monitoring period, it was observed through breakdown log sheet records/23/ onsite that no unforeseen incident/event evolved which can impact the operation of the project activity. The project underwent continuous operation and only scheduled shutdowns due to Mechanical & Electrical Yearly Maintenance, Force Majeure, Substation incoming breakdown, High/Low Voltage from Substation and Load Shedding occurred for current verification and it resulted in total breakdown for each site as;

1. 90.77 hours for 22.5 MW Dewas site
2. 89.91 hours for 7.5 MW Dhar site
3. 105.25 hours for 13.5 MW Dhar Site
4. 61.21 hours for 30 MW Hatuniya site
5. 59.35 hours for 10.5 MW Vejalpar site

This is as per the manufactures specification which is acceptable to the assessment team. Moreover, there is no unforeseen incident which can affect the applicability of the methodology and thus the same is acceptable to the assessment team.

Project location is confirmed by the assessment team through the GPS Google software and Google earth /27/. Moreover, assessment team confirm that the latitudes and longitudes as mentioned in the registered VCS Joint PD&MR/3/ are not consistent. As PP have requested a deviation regarding the same in section 3.3 above. Assessment team has verified the project location from previous verification reports /29/ and through onsite and remote audit /26/ and the location mentioned below is found to be consistent and confirmed by assessment team after checking all the WTG locations from Google earth /27/.

The Geo Coordinates of the WTG wise latitudes and longitudes are confirmed below:

Sr. No.	Project Owner	Machine ID	Village	Taluka	District	State	Latitude	Longitude
1	Giriraj Enterprises	RISPL/1500/16-17/4049	Kumbhariya	Morbi	Morbi	Gujarat	23°07'39.4" N	70°56'48.1" E
2	Giriraj Enterprises	RISPL/1500/16-17/4050	Kumbhariya	Morbi	Morbi	Gujarat	23°07'18.0" N	70°57'10.0" E
3	Giriraj Enterprises	RISPL/1500/16-17/4051	Kumbhariya	Morbi	Morbi	Gujarat	23°08'05.7" N	70°56'53.2" E
4	Giriraj Enterprises	RISPL/1500/16-17/4052	Kumbhariya	Morbi	Morbi	Gujarat	23°08'05.0" N	70°56'53.0" E
5	Giriraj Enterprises	RISPL/1500/16-17/4053	Kumbhariya	Morbi	Morbi	Gujarat	23°07'52.8" N	70°56'48.5" E
6	Giriraj Enterprises	RISPL/1500/16-17/4054	Kumbhariya	Morbi	Morbi	Gujarat	23°07'28.0" N	70°57'54.0" E
7	Giriraj Enterprises	RISPL/1500/16-17/4055	Kumbhariya	Morbi	Morbi	Gujarat	23°08'04.0" N	70°57'59.0" E
8	Giriraj Enterprises	RH3- 01	Ratikhe di	Mandsaur	Mandsaur	Madhya Pradesh	23°53'55.5" N	75°14'00.2" E

9	Giriraj Enterpris es	RH3- 02	Bholiya	Mandsa ur	Mandsa ur	Madhya Pradesh	23°52'51.2" N	75°13'50.4" E
10	Giriraj Enterpris es	RH3- 03	Ratikhe di	Mandsa ur	Mandsa ur	Madhya Pradesh	23°53'15.3" N	75°13'52.0" E
11	Giriraj Enterpris es	RH3- 04	Ratikhe di	Mandsa ur	Mandsa ur	Madhya Pradesh	23°53'44.6" N	75°14'18.3" E
12	Giriraj Enterpris es	RH3- 05	Ratikhe di	Mandsa ur	Mandsa ur	Madhya Pradesh	23°53'50.2" N	75°14'09.1" E
13	Giriraj Enterpris es	RH3- 06	Kankar wa	Jaora	Mandsa ur	Madhya Pradesh	23°51'35.7" N	75°13'46.3" E
14	Giriraj Enterpris es	RH3- 07	Bholiya	Mandsa ur	Mandsa ur	Madhya Pradesh	23°52'33.8" N	75°14'02.4" E
15	Giriraj Enterpris es	RH3- 08	Kankar wa	Jaora	Mandsa ur	Madhya Pradesh	23°51' 30.7"N	75°13'54.6" E
16	Giriraj Enterpris es	RH3- 09	Bholiya	Mandsa ur	Mandsa ur	Madhya Pradesh	23°52'04.7" N	75°13'22.4" E
17	Giriraj Enterpris es	RH3- 10	Bholiya	Mandsa ur	Mandsa ur	Madhya Pradesh	23°51'56.2" N	75°13'20.5" E
18	Giriraj Enterpris es	RH4- 01	Jogikhe da	Mandsa ur	Mandsa ur	Madhya Pradesh	23°55'44.0" N	75°13'01.0" E
19	Giriraj Enterpris es	RH4- 02	Ratikhe di	Mandsa ur	Mandsa ur	Madhya Pradesh	23°54'41.0" N	75°13'35.5" E

20	Giriraj Enterpris es	RH4- 03	Kuchdo d	Mandsa ur	Mandsa ur	Madhya Pradesh	23°54'28.9" N	75°14'57.5" E
21	Giriraj Enterpris es	RH4- 04	KhajuriA njana	Mandsa ur	Mandsa ur	Madhya Pradesh	23°55'26.4" N	75°13'22.7" E
22	Giriraj Enterpris es	RH4- 05	Ratikhe di	Mandsa ur	Mandsa ur	Madhya Pradesh	23°55'18.0" N	75°13'29.5" E
23	Giriraj Enterpris es	RH4- 06	KhajuriA njana	Mandsa ur	Mandsa ur	Madhya Pradesh	23°55'35.6" N	75°13'24.3" E
24	Giriraj Enterpris es	RH4- 07	KhajuriA njana	Mandsa ur	Mandsa ur	Madhya Pradesh	23°55'35.5" N	75°13'24.1" E
25	Giriraj Enterpris es	RH4- 08	KhajuriA njana	Mandsa ur	Mandsa ur	Madhya Pradesh	23°55'44.0" N	75°13'01.2" E
26	Giriraj Enterpris es	RH4- 09	KhajuriA njana	Mandsa ur	Mandsa ur	Madhya Pradesh	23°54'42.3" N	75°14'46.6" E
27	Giriraj Enterpris es	RH4- 10	Kuchdo d	Mandsa ur	Mandsa ur	Madhya Pradesh	23°54'33.4" N	75°14'46.6" E
28	Giriraj Enterpris es	TK- 01	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'00.2" N	76°15'42.4" E
29	Giriraj Enterpris es	TK- 04	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'32.4" N	76°15'40.4" E
30	Giriraj Enterpris es	TK- 05	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'43.5" N	76°15'13.4" E

31	Giriraj Enterpris es	TK- 06	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'11.8" N	76°15'05.9" E
32	Giriraj Enterpris es	TK- 07	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'54.9" N	76°15'10.8" E
33	Giriraj Enterpris es	TK- 08	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'21.9" N	76°15'05.7" E
34	Giriraj Enterpris es	TK- 09	Devli	TonkKh urd	Dewas	Madhya Pradesh	23°06'18.3" N	76°15'39.6" E
35	Giriraj Enterpris es	TK- 10	Devli	TonkKh urd	Dewas	Madhya Pradesh	23°06'29.7 "N	76°15'43.1" E
36	Giriraj Enterpris es	TK- 12	Ranayal Kala	TonkKh urd	Dewas	Madhya Pradesh	23°06'52.3 "N	76°15'40.4" E
37	Giriraj Enterpris es	TK- 14	Ranayal Kala	TonkKh urd	Dewas	Madhya Pradesh	23°07'11.6" N	76°15'35.3" E
38	Giriraj Enterpris es	TK- 02	BhojPur a	TonkKh urd	Dewas	Madhya Pradesh	23°05'03.9" N	76°15'27.7" E
39	Giriraj Enterpris es	TK- 13	Ranayal Kala	TonkKh urd	Dewas	Madhya Pradesh	23°07'04.1" N	76°16'06.0" E
40	Giriraj Enterpris es	TK- 15	Sankely	TonkKh urd	Dewas	Madhya Pradesh	23°08'12.7" N	76°16'45.3" E
41	Giriraj Enterpris es	TK- 16	Sankely	TonkKh urd	Dewas	Madhya Pradesh	23°07'26.6" N	76°16'37.8" E

42	Giriraj Enterpris es	TK- 17	Sankely	TonkKh urd	Dewas	Madhya Pradesh	23°08'27.3" N	76°16'27.1" E"
43	Giriraj Enterpris es	TIR- 04	Labrawa da	Dhar	Dhar	Madhya Pradesh	22°38'06.9" N	75°15'52.5" E
44	Giriraj Enterpris es	TIR- 05	Navgao n	Dhar	Dhar	Madhya Pradesh	22°38'25.7" N	75°16'20.1" E
45	Giriraj Enterpris es	TIR- 07	Kalukhe di	Dhar	Dhar	Madhya Pradesh	22°38'29.8" N	75°16'11.0" E
46	Giriraj Enterpris es	TIR- 09	Kalukhe di	Dhar	Dhar	Madhya Pradesh	22°38'36.3" N	75°16'03.0" E
47	Giriraj Enterpris es	TIR- 10	Chikliya	Dhar	Dhar	Madhya Pradesh	22°37'51.7" N	75°15'46.3" E
48	Giriraj Enterpris es	TIR- 03	Navgao n	Dhar	Dhar	Madhya Pradesh	22°37'58.8" N	75°16'16.9" E
49	Giriraj Enterpris es	TIR- 06	Navgao n	Dhar	Dhar	Madhya Pradesh	22°38'09.2" N	75°16'20.0" E
50	Giriraj Enterpris es	TIR- 12	Navgao n	Dhar	Dhar	Madhya Pradesh	22°37'51.7" N	75°15'46.3" E
51	Giriraj Enterpris es	TIR- 13	Navgao n	Dhar	Dhar	Madhya Pradesh	22°39'00.3" N	75°17'27.3" E
52	Giriraj Enterpris es	TIR- 14	Navgao n	Dhar	Dhar	Madhya Pradesh	22°37'52.3" N	75°16'28.0" E

53	Giriraj Enterprises	ADD- 02	Navgaoan	Dhar	Dhar	Madhya Pradesh	22° 37' 51.8" N	75° 16' 54.4" E
54	Giriraj Enterprises	ADD- 03	Navgaoan	Dhar	Dhar	Madhya Pradesh	22° 38' 27.8" N	75° 17' 05.9" E
55	Giriraj Enterprises	ADD- 04	Navgaoan	Dhar	Dhar	Madhya Pradesh	22° 38' 39.1" N	75° 17' 01.1" E
56	Giriraj Enterprises	ADD- 05	Khilchipura	Dhar	Dhar	Madhya Pradesh	22° 38' 53.9" N	75° 17' 41.5" E

The verification team uploaded the coordinates of the WTGs of the project in Google pro website and obtained the following WTG location maps:

Figure 01: Overview of the locations of the WTGs in the Project Activity

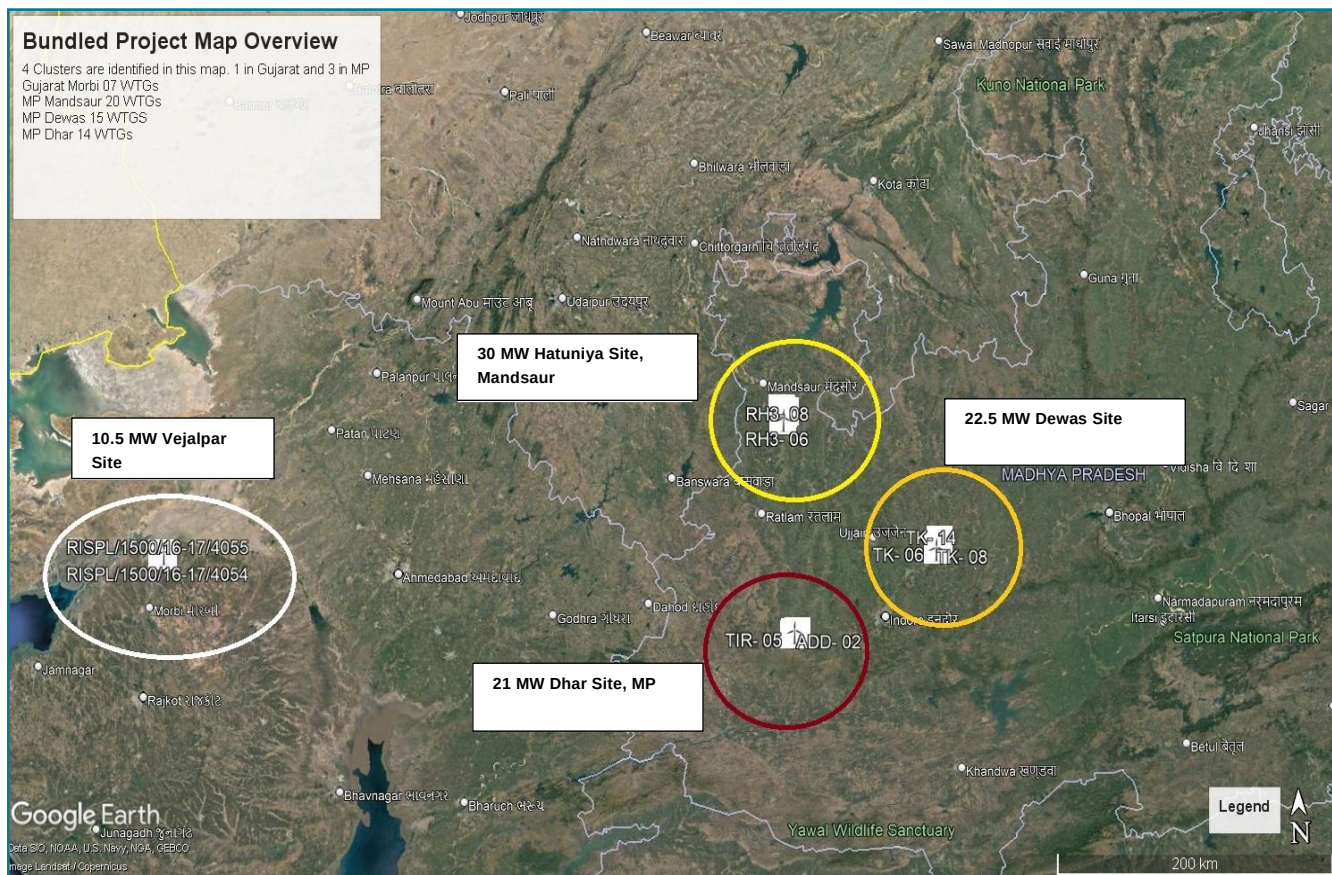


Figure 02: 10.5 MW Vejalpar Site in Morbi District, Gujarat

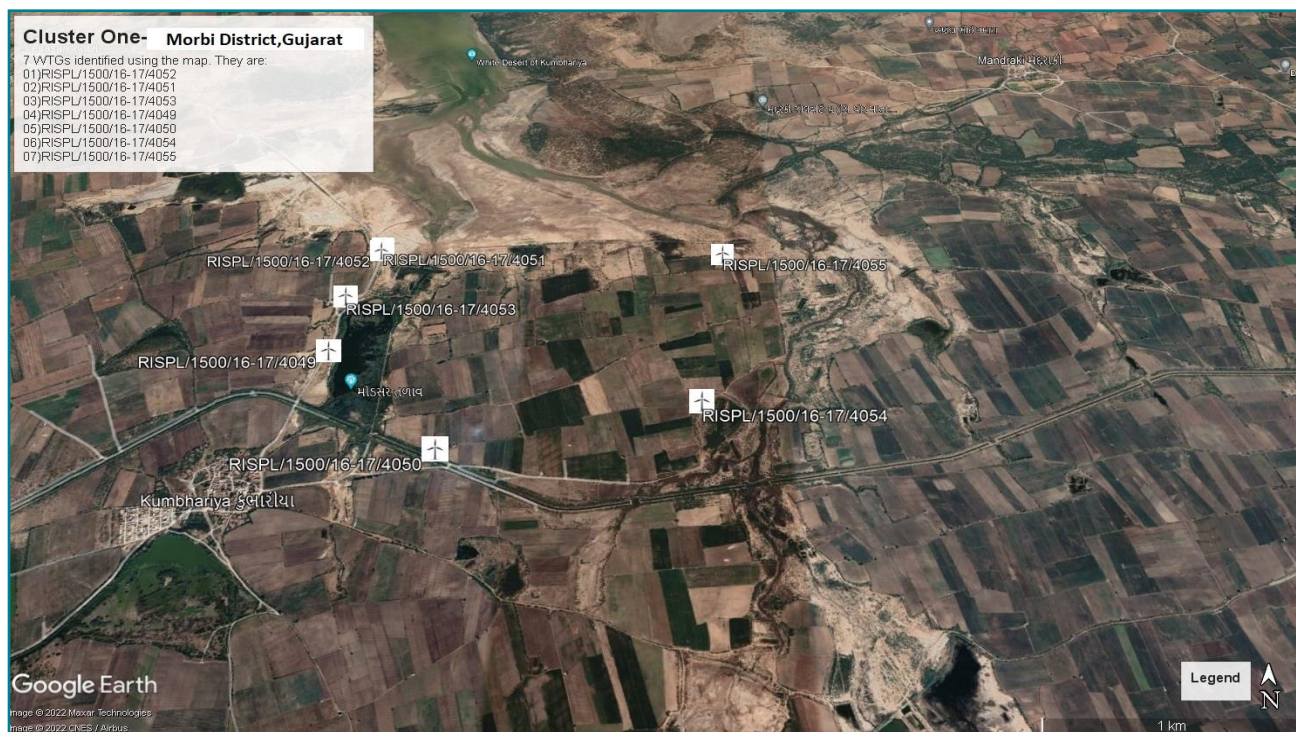
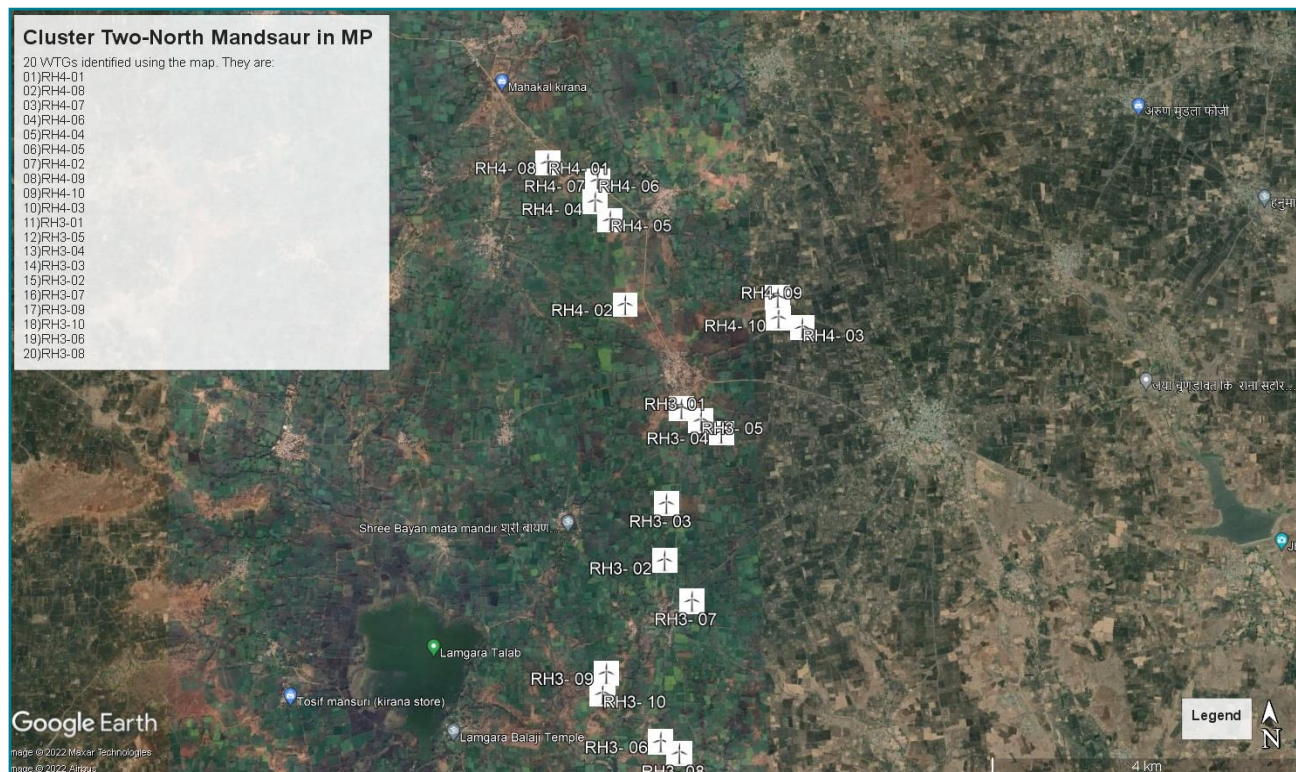


Figure 03: 30 MW Hatuniya site in Mandsaur District, MP



Cluster Three-Central Dewas in MP

15 WTGs identified using the map. They are:

- 01)TK-17
- 02)TK-15
- 03)TK-16
- 04)TK-14
- 05)TK-13
- 06)TK-12
- 07)TK-10
- 08)TK-09
- 09)TK-07
- 10)TK-05
- 11)TK-04
- 12)TK-08
- 13)TK-06
- 14)TK-02
- 15)TK-01

Google Earth

hinge © 2022 Maxar Technologies
image © 2022 Airbus

Legend

3 km

Starting date of the operation of the project activity is 31-March-2015 which is the date of commissioning/commercial operation of the 1st WTG. Assessment team checked the commissioning certificate/13 / and confirmed that the date of Commissioning for the WTGs are correct. Assessment team also confirm during the onsite and remote audit/26 / that there is no change in project design and the project is implemented as per the description provided in the registered VCS Joint PD&MR/3/.

Commissioning dates of WTGs are given below:

Site	State	Capacity	Commissioning Date	WTG-ID	Feeder Details	Location
Dhar Site	Madhya Pradesh	13.5 MW	31-March-2016	TIR-03, TIR-06, TIR-12, TIR-13, TIR-14, ADD-02, ADD-03, ADD-04, ADD-05	Jaitpura Feeder	
		7.5 MW	31-March-2016	TIR-04, TIR-05, TIR-07, TIR-09, TIR-10	Dashera Feeder	Maidan
Dewas Site		15 MW	30-May-2016	TK-01, 02, 04, 05, 06, 07, 08, 09, 10, 12	Prisma Feeder	
		7.5 MW	31-May-2016	TK-13, 14, 15, 16, 17	Prisma Feeder	
Hatuniya Site		15 MW	31-March-2015	RH3-01 to RH3-10	Kuchrod Mandsour	Site,
		15 MW	31-March-2015	RH4-01 to RH4-10	AF Jalpur, Mandsour	
Vejalpar Site	Gujarat	10.5 MW	02-March-2017	RISPL/1500/16-17/4049 to 4055	Morbi, Gujarat	

The technical parameters have been verified with the name plates as well as with the technical specifications of WTGs and also cross checked from the technical manual of the manufacturer³/24/. Assessment team confirms that the technical parameters are consistent with the registered VCS Joint PD&MR/3/. The project activity comprises a total of 56 WTG's of ReGen Power Tech make

The major technical specifications of the WTG are as follows:

³ <http://www.regenpowertech.com/104/technical-data>

Particulars	Details
Make	ReGen Powertech
Rated power	1500 kW
Cut-in wind speed	3 m/s
Cut-out wind speed	22 m/s
Survival wind speed	52.5 m/s
Generator	Variable Speed Multi Pole Synchronous
Rotor Diameter	87 m
Swept area	5942 m ²
Speed Range	9 to 17.3 rpm
Hub Height	85 m
Design	Tubular, Four Sections
Foundation Type	Floating
Control of Output	Pitch Regulation
Speed Control	Variable, micro controller based
Low Voltage Ride Through (LVRT)	3 seconds
Primary Brake system	Aerodynamic
Pitch System	Electromechanical
Remote Monitoring	VPN
Wind Turbine type class	GL III B
Design Lifetime	25 years

The assessment team confirmed through onsite and remote visit/26 / with PP representative that there is one proposed change to the project design during this monitoring period from 01-July-2021 to 31-March-2022 (first and last date included) related to the corrected Geo Coordinates of the WTGs as they were found to be incorrect during audit and desk review thus PP has taken deviation and it was verified by the assessment team during desk review/26/ using the GPS Google software and Google earth/27/and found to be correct thus accepted. It was observed that the monitoring plan was implemented as per the registered VCS Joint PD&MR/3/ and applied methodology., ACM0002 Version 17.0/7/. The organizational role and responsibility as mentioned in the registered VCS Joint PD&MR/3/ is followed onsite and remote site. Meters are calibrated as per calibration frequency in registered VCS Joint PD&MR/3/. All the emergency preparedness as mentioned in the registered VCS Joint PD&MR/3/ is followed onsite and no discrepancies were found regarding the same.

Assessment team concludes the following:

- There are no material discrepancies between project implementation and the project description provided in the registered VCS Joint PD&MR /3/.
- The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling and analyzing the monitored data and parameters) is appropriate.
- There are no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology /7/.
- The GHG emission reductions or removals generated by the project have not been included in any emissions trading program or any other mechanism that includes GHG allowance trading/15/.
- The project has not received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification/29 /.
- The project is registered under VCS only. PP has submitted the declaration /15/ stating, they will not claim same GHG emission reductions of the project from other registries for the current monitoring period when project is seeking to get GHG emission reduction from VCS.
- The project activity complies with four indicators for sustainable development i.e., social wellbeing, economic wellbeing, environmental wellbeing and technological wellbeing in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India as discussed under section 1.11 of MR /1/. Assessment team has verified the same during on site visit /19/ and found all the indicators can be observed to be effective and applicable for the project activity.
- The Project activity has implemented activities that results in 2 SDG Contributions; 7.2.1 and 13

7.2.1: Renewable energy share in the total final energy consumption- 108,529.60 MWh of renewable electricity has been supplied to Indian grid during the current monitoring period that helped to increase the renewable energy share in the energy mix. The total energy supplied to Indian Grid by the project activity during its lifetime is 1028,442.19 MWh (150,967.36 + 170,482.07 + 201,071.42 + 173,469.88 + 138,768.86 + 85,153 + 108,529.60) MWh

13: Tonnes of greenhouse gas emissions avoided or removed- By supplying 108,529.60 MWh clean electricity to Indian grid, the project avoided release of 106,103 tCO₂e in to the atmosphere during the current monitoring period. The greenhouse gas emissions avoided by the project activity during its lifetime are 1005,481 tCO₂e (147,600 + 166,680 + 196,587 + 169,561 + 135,671 + 83,279 + 106,103) tCO₂e.

The contributions are briefly listed down in the table below: -

S. No.	Energy supplied by the project activity to grid during its lifetime (MWh)	GHG emissions avoided by the project activity during its lifetime (tCO ₂ e)	Monitoring Period dates
1.	150,967.36	147,600	<u>31-March-2015 to 28-February-2017</u>
2.	170,482.07	166,680	<u>01-March-2017 to 31-March-2018</u>
3.	201,071.42	196,587	<u>01-April-2018 to 31-March-2019</u>
4.	173,469.88	169,561	<u>01-April-2019 to 29-February-2020</u>
5.	138,768.86	135,671	<u>01-March-2020 to 31-December-2020</u>
6.	85,153	83,279	<u>01-January-2021 to 30-June-2021</u>
7.	108529.60	106,103	s01-July-2021 to 31-March-2022

In view of the information's as verified above the assessment team is able to conclude that the project has been implemented as described in the registered VCS Joint PD&MR /3/ and MR /1/. The emission reduction achieved in current monitoring period from 01-July-2021 to 31-March-2022 are 106,103 tCO₂e which are 11.17% lower than what was anticipated. The lower emission reduction was due to major shutdown of 406.49 (which constituted 6.18% of total available hours for the monitoring period) and low PLF achieved during the current monitoring period and same has been justified in section 4.5 below.

The site wise PLF achieved vs as stated at the time of validation is provided in the table below for comparison purposes. It can be seen low PLF achieved is largely due to erratic weather patterns and the monitoring period not being conducive to achieve the PLF as stated at the time of validation.

S.No.	Site	Capacity in MW	PLF as per Validation Report	PLF achieved in this Monitoring Period
1.	Hatuniya Site	30	20%	18.03%
2.	Dhar Site	21	23%	17.94%
3.	Dewas Site	22.5	23%	22.45%
4.	Vejalpar Site	10	24.50%	21.67%

4.2 Safeguards

4.2.1 No Net Harm

Being renewable wind power generation project there are no negative impacts on air, water, soil quality and ambience are envisaged due to the implementation of project activity and no

potential negative environmental and socio-economic impacts in current monitoring period, in fact project activity contributes positively by providing environment friendly power generation leading to sustainable development of the region. Also, the generation of employment supports upliftment of socio-economic status of region.

The project activity has no significant impact on the environment. Wind power projects are not included in the Schedule I of the EIA notification S.O.1533 (E) dated /14-09-2006⁴ and thus an EIA is not required. Ministry of Environment & forests vide their OM J-11013/41/2006 - IA II (I) dated 13-05-2011, has re-affirmed this and exempted wind power plants from EIA and Environmental Consent requirement.

As per the Schedule 1 of the EIA notification dated 01-December-2009 and latest notification dated 24-December-2013, given by the Ministry of Environment and Forests under the Environment (Protection) Act 1986, the proposed Project activity does not fall under the list of activities requiring EIA as the environmental impacts for such project are not considered as significant by the host Party or PP.

4.2.2 Local Stakeholder Consultation

The Project is already registered with VCS and registered VCS Joint PD&MR/3/; sections 2.2 describes the Local Stakeholder Consultation Process as in-line with VCS requirement.

As a part of continuous feedback from stakeholders, there were no other major comments or protest raised by the stakeholders and they were totally in support for setting up of these kinds of projects in the region.

For ongoing communication, the PP has also placed a grievance register/25/ onsite where in the stakeholder can put down his/her complain and the same if found genuine will be addressed immediately. However, there is no feedback/grievance has been reported within this monitoring period verified onsite from the grievance register placed at the site.

The verification team has interacted with local stakeholders during on-site assessment and details are summarized in section 2.3 of this report. There was no negative comment or feedback from local stakeholders as recorded by the verification team.

4.3 AFOLU-Specific Safeguards

The project activity deals with generation of electricity using wind energy by Wind Turbine Generator (WTG) and not from AFOLU projects. Hence not applicable.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The project monitoring has been carried in accordance with the registered VCS Joint PD&MR /3/ and the monitoring report/1/. The project involves just one parameter to be monitored **EGPJ,y** (Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y) according to the monitoring plan and monitoring report/1/. The parameter value is sourced from JMRs/11/ and Invoices/12/. Proper calibrated meters of 0.2s accuracy class installed at site regularly monitor the import and export value which is monthly aggregated in JMRs. ER sheet prepared by PP has been reviewed by assessment team thoroughly by cross checking the values of JMRs and Invoices submitted by PP and found correct including all the formulae and conversions and aggregations.

The monitoring plan laid in the registered VCS Joint PD&MR/3/ is being followed at the site/26/. The assessment team has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the MR/1/. The emission reductions are based on the net electricity generated and exported from the machines. PP has provided all the sufficient data for current monitoring period. The values of the parameter net electricity generation supplied to the grid by each phase used in deriving the GHG emission reduction could be very well correlated between the data sets and ER spreadsheet/2/ provided by PP. The verification of each monitoring parameter has been discussed later in section 4.5 of this report.

The expected emission reduction from the project activity for current monitoring period are 119,440 tCO₂e for the current monitoring period, whereas the actual emission reductions achieved were 106,103 tCO₂e which is 11.17% lower than what was anticipated. This lower generation of emission reduction is due to lower PLF achieved in current monitoring period which is highly driven by wind availability and PP do not have any control on it and breakdown of 406.49 hours for different sites involved in project activity happened during current monitoring period.

In section 4,5 of this report and section 5.4 of MR /1/ calculations has been stated which are appropriately presented in ER spreadsheet /2/ that has been verified by the assessment team from JMRs issued to PP by State utility/10/& invoices issued by PP to state electricity authority /12/ submitted to assessment team by PP. The calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e., ACM0002 Version 17.0 /7/. Since project activity is a wind power project, and no type of fossil fuel is used under project activity during current monitoring period thus no leakage emission and project emission has been considered as per para 36 of the methodology used. Hence VKU states that the calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e., ACM0002 Version 17.0 /7/

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

During the verification, all relevant documents were checked to assess the correctness and quality of data submitted by the project participants, which are used to determine emission reductions.

All records needed for monitoring are archived in line with the requirements of the registered monitoring plan. No significant, lack of evidence and missing data were detected during verification. Hence, the verification team confirms that the monitoring system ensures required quality of the monitoring system to ensure the quality of the monitored data. All internal data are subjected to QA/QC measures.

The only monitoring parameter in the project activity is “Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y, **EG_{PJ,y} (MWh)**”. This parameter is monitored through controller reading of each WTG and the reading of bulk energy meters installed at substation.

The below tables describe how the parameter **EG_{PJ,y}** is to be measured according to the monitoring plan, has been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are meet:-

Parameter	Quantity of net electricity generation supplied by the project (Wind) plant/unit to the grid in year y EG_{PJ,y}(MWh)	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. The value of net electricity generation supplied to the grid as per Joint Meter Reading Report forms/10/ the basis for calculation of the emission reductions Net electricity supplied to grid is calculated as the difference of the measured values of “export” and “import” of electricity through the dedicated SEB (State electricity board) energy meter installed at the delivery point (i.e., the connected substation). Net electricity generated and supplied by the project (Wind) plant/unit to the grid = Electricity Export to the grid –

		Electricity Import from the grid
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan outlined in the registered VCS JointPD&MR /3/ and monitoring methodology/7/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However, the parameters Export and Import values are calculated using measured values, which are continuously monitored, hourly measurement and monthly recorded.
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values such as import and export to calculate net electricity generation value is 0.2s, which is as per the registered VCS Joint PD&MR /3/ which is as per the norm defined in the PPA/14/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment's is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years ⁵ .
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring	Yes. The calibration frequency is once in 5 years as outlined in the registered Joint VCS PD&MR

⁵ As per CEA Guideline

	plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	/03/ is in accordance with the national standard/17 /.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the measuring equipment's is carried out by state utility of Madhya Pradesh and Gujarat (MPPKVCL&GETCO)
	Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of meters is valid for the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately.
	How were the values in the monitoring report verified?	Cumulative value of EGp,j,y for entire monitoring period is reported in the monitoring report/1/, and monthly values in the ER calculation sheet/2/. The monthly values were verified from the credit notes issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified for 30MW Hatuniya Site as 35,563.707MWh, for 22.5MW Dewas site as 24,778.704 MWh, for 21MW Dhar Site as 33,221.199 MWh for all Madhya Pradesh sites and for 10.5MW Vejalpar Site as 14,965.986MWh for Gujarat

		Site and total electricity generation for all sites as 108,529.596 MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EGp,j,y were further cross checked with the monthly invoices raised by the PP /12/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Onsite and remote site personnel interview/26/ with the stakeholder of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable. The desk review of the O&M agreements and registered monitoring plan and its implementation in the current monitoring period is done to satisfactorily verify that the system is in place.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CAR#02 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the WTGs. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

Parameters fixed ex ante:

EF_{grid,OM,y}; tCO₂/MWh: It is the operating margin CO₂ emission factor for of NEWNE at the time of project registration, the mentioned value of 0.9941 tCO₂/MWh is consistent with the registered Joint VCS PD&MR/3/.

EF_{grid,BM,y}; tCO₂/MWh: It is build margin CO₂ emission factor for of NEWNE at the time of project registration the mentioned value of 0.9285 tCO₂/MWh is consistent with the registered Joint VCS PD&MR /3/.

EF_{grid,CM,y}; tCO₂/MWh: It is the combined margin CO₂ emission factor for Of NEWNE at the time of project registration the mentioned value of 0.9777 tCO₂/MWh is consistent with the registered Joint VCS PD&MR /3/.

Calibration of meters:

During the verification assessment of the project activity, accuracy of all the metering have been checked and found appropriate. The installation and working conditions of the meters were checked during the on-site and remote inspection and were found to be satisfactory. Details of meters are provided in below table:

The current meter details for M/s Giriraj Enterprises are as follows:

30 MW Hatuniya Site, Madhya Pradesh

One Feeder having 10 WTGs (RH3-01 to RH3-10) of 1.5 MW each and another Feeder having 10 WTGs (RH4-01 to RH4-10) of 1.5 MW each.

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration
Kuchrod Site, Mandsour	15 MW	Main Meter	XB589231	Secure	0.2s	12-July-2021	11-July-2026
Kuchrod Site, Mandsour		Check Meter	XC502293	Secure	0.2s	12-July-2021	11- July -2026
AF Jalpur, Mandsour	15 MW	Main Meter	XC502289	Secure	0.2s	12-July-2021	11- July -2026
AF Jalpur, Mandsour		Check Meter	XC502290	Secure	0.2s	12-July-2021	11- July -2026

22.5 MW Dewas Site, Madhya Pradesh

Feeder 1 having 7 WTGs of 1.5 MW each and Feeder 2 having 8 WTGs of 1.5 MW each

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration
Prisma Feeder 1 (Dewas)	10.5 MW	Main Meter	XD500621	Secure	0.2s	08-December-2017	07- December -2022

Prisma Feeder (Dewas)	1		Check Meter	XD500622	Secure	0.2s	08- December -2017	07- December -2022
Prisma Feeder (Dewas)	2	12 MW	Main Meter	XD500619	Secure	0.2s	08- December -2017	07- December -2022
Prisma Feeder (Dewas)	2		Check Meter	XD500620	Secure	0.2s	08- December -2017	07- December -2022

21 MW Dhar Site, Madhya Pradesh

One Feeder having 5 WTGs of 1.5 MW each and another Feeder having 9 WTGs of 1.5 MW each.

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration
Tirupati Dhar Renewable Power Pvt. Ltd (Jaitpura)	13.5 MW	Main Meter	XD500605	Secure	0.2s	13-July-2021	12-July-2026
Tirupati Dhar Renewable Power Pvt. Ltd (Jaitpura)		Check Meter	XD500606	Secure	0.2s	13-July-2021	12-July-2026
Dhar Wind Power Projects Pvt. Ltd. (Dashera Maidan)	7.5 MW	Main Meter	XD500602	Secure	0.2s	15-July-2021	14-July-2026
Dhar Wind Power Projects Pvt. Ltd. (Dashera Maidan)		Check Meter	XD500603	Secure	0.2s	15-July-2021	14-July-2026

10.5 MW Vejalpar Site, Gujarat

Location	Capacity	Type of Meter	Meter No.	Make	Accuracy	Date of Calibration	Validity of Calibration
Line-2 Meters	10.5 MW	ABT Meter	GJ 1320 A	Secure	0.2s	08-October-2018	07-October-2023
Line-2 Meters		Check Meter	GJU 66432	Secure	0.2s	08--October-2018	07-October-2023

Assessment on delay in calibration:

The energy meter calibration certificates/11/ were checked by assessment team with respect to their calibration validity, accredited entity, accuracy class, make and calibration date and found that the calibration details provided in the MR are correct. From the verification of above table, verification team also confirms that the energy meter calibrations are valid for the complete monitoring period i.e., from 01-July-2021 to 31-March-2022 (inclusive of both the dates).

The verification team has checked all the meters and confirmed that the meters were working satisfactorily. Also, the calibration of meters is completely under purview of state utility and PP has no control over the same as confirmed through interviews of site personnel and PPA/14/ signed by the PP with state utility.

Hence it can be concluded on 14-June-2022 that the approach followed by the PP is conservative and in line with the guidelines provided under paragraph 3.4.2 of VVS version 4.3/5/. The registered Joint VCS PD&MR/3/ and MR /1/. Onsite and remote audit observations confirm that the metering equipment are sealed and maintained by the state utility.

The assessment team has verified the monthly credit notes issued by the state utility and JMRs confirmed that only the data recorded through main meters is used to calculate net electricity supplied to the grid consequently for ER calculations for all sites. JMRs / Share certificates are available for all the sites and cross verification is done with the invoices for all sites. to verify the energy generation during current monitoring period 01-July-2021 to 31-March-2022(inclusive of both the dates).

In view of the above discussion the assessment team is able to confirm that evidence used to determine the GHG reductions and removals are sufficient and appropriate with respect to quality and quantity.

GHG Calculations:

The emission reduction as per the applied methodology equals the baseline emissions (project emissions and leakage emissions for such project activities is considered zero). The formula provided for the calculation of baseline emissions is:

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

Where:

BE_y = Baseline Emissions in year y; tCO₂

$EG_{PJ,y}$ = Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y; MWh

$EF_{grid, y}$ = CO₂ emission factor of the grid in year y; tCO₂/MWh

The baseline emissions for the project activity for the current monitoring period are as follows.

Baseline Emission factor = 0.9777tCO₂/MWh

Calculation of $EG_{PJ,y}$

Since the project activity is the installation of a new grid-connected renewable power plant at a site where no renewable power plant was operated prior to the implementation of the project activity, then:

$$EG_{PJ,y} = EG_{\text{facility},y}$$

Where;

$EG_{PJ,y}$ = Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the project activity in year y (MWh/yr)

$EG_{\text{facility},y}$ = Quantity of net electricity generation supplied by the project plant/unit to the grid in year y (MWh/yr)

Electricity Supplied to the Grid, $EG_{PJ,y} = 108,529.60\text{MWh}$

Baseline Emission, $BE_y = 108,529.60 \times 0.9777$

= 106,103 tCO₂e (ROUND DOWN)

The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified. The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed.

The assumptions, emission factors and default values that were applied in the calculations are justified. The actual emission reduction achieved during the current monitoring period are 106,103 tCO₂e which are 11.17 % lower than the estimated amount of emission reductions as 119,440 tCO₂e which is as per Joint VCS PD&MR/3/, which is due to the low PLF achieved and breakdown of 406.49 hours happened at all 5 sites as mentioned in section 4.1 of this report and section 3.1 of MR/1/ due to Mechanical & Electrical Yearly Maintenance, Force Majeure, Substation incoming breakdown, High/Low Voltage from Substation and Load Shedding achieved by the project activity during the current monitoring period 01-July-2021 to 31-March-2022 (inclusive of both the dates) which is completely governed by the availability of wind and plant maintenance, which is a natural phenomenon and technical issues which are beyond the control of PP.

This comparison is submitted in the ER sheet along with a justification confirming that this event of lower power generation was an unforeseen situation and also not under the direct control of PP. Since the emission reduction is less than the estimated emission reduction, no further justification is required.

All the data were made available and have been monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described above.

VKU is of the opinion that this method of calculation of emission reductions is accurate and results in conservative estimation of emission reduction and is in line with the applicable VCS requirements.

4.6 Non-Permanence Risk Analysis

There is no non-permanence risk rating determined by the project proponent for the project activity hence not applicable.

5 VERIFICATION CONCLUSION

M/s VKU Certification Pvt. Ltd. has performed the seventh verification of the emission reductions reported for the project activity “Bundled Wind Power Project by Giriraj Enterprises” in India, VCS Registry Project ID 1669, for the period 01-July-2021 to 31-March-2022 (Inclusive of both start and end dates), with regard to the relevant requirements for VCS activities. As described in the report from section 1 to 4, VKU has performed the entire verification according to the verification criteria for projects and their GHG emission reductions or removals set out in VCS Standard Version 4.3/5/. The project participants of the “Bundled Wind Power Project by Giriraj Enterprises” project are responsible for:

- The preparation of greenhouses gas emissions data and the reported greenhouse gas emission reductions from the project on the basis set out in the monitoring plan contained in the registered Joint VCS PD&MR /3/version 2.0 of 28-03-2016
- The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of greenhouse gas emission reductions of the project.

It is the responsibility of VKU to express an independent verification opinion about the project's conformity with the requirements of VCS Standard version 4.3 /5/and GHG program applied, on the reported greenhouse gas emission reductions from the project.

Based on documented evidence and corroborated by an on-site assessment, VKU can confirm that:

- The project has been implemented and operated as per the registered VCS Joint PD&MR/3/
- The monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable VCS Standard version 4.3/5/ requirements;
- The monitoring is in place as per the applied baseline and monitoring methodology;
- The monitoring plan in the registered VCS Joint PD&MR /3/ is as per the applied baseline and monitoring methodology.

VKU Certification verification approach is based on the understanding of the risks associated with reporting of GHG emission data and the controls in place to mitigate these. VKU Certification planned and performed the verification by obtaining evidence and other information and explanations that VKU Certification considered necessary to give reasonable assurance that reported GHG emission reductions are fairly stated.

It is VKU's opinion that the GHG emission reduction stated in the monitoring report version 4 of 28-September-2022 for the "Bundled Wind Power Project by Giriraj Enterprises" in India for the period 01-July-2021 to 31-March-2022 (Inclusive of both start and end dates) are fairly stated. The GHG emission reductions are calculated on the basis of approved methodology ACM0002, version 17.0/7/ and the monitoring plan included in the registered VCS Joint PD&MR /3/, version 2.0 of 28-March-2016

Hence VKU is able to certify that the emission reduction from the project during the monitoring period from 01-July-2021 to 31-March-2022 (Inclusive of both start and end dates) amounts to 106,103 tCO₂e. The following table shows the net emission reduction from 01-July-2021 to 31-March-2022 (Inclusive of both start and end date) of first crediting period from 31-March-2015 to 30-March-2025 (Including both dates).

Verification period: From 01-July-2021 to 31-March-2022 (Inclusive of both start and end dates)

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
Year 2021 (01-July-2021 to 31-December-2021)	75,591	0	0	75,591
Year 2022 (01-January-2022 to 31-March-2022)	30,512	0	0	30,512
Total	106,103	0	0	106,103

APPENDIX A: ABBREVIATIONS

Abbreviations	Full texts
BE	Baseline Emissions
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CL	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EF	Emission Factor
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
MR	Monitoring Report
NGO	Non-governmental Organization
ODA	Official Development Assistance
PD	Project Description
PE	Project Emission
PP(s)	Project Participant(s)
Ref.	Document Reference
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VCU	Verified Carbon Unit
VKU	VKU Certification Ltd.
VCS	Verified Carbon Standard
VVS	Validation and Verification Standard
VVB	Validation and verification body

APPENDIX B: AUDIT FINDINGS

Type	Date	28-June-2022
CL#01	Reference	Section of Ver protocol: 1/DR& Section 3/DR
Description of the Non Conformance		
1. PP is requested to submit the declaration to the VVB confirming there is no credit received or claimed for this monitoring period as mentioned in section 1.10 2. PP is requested to clarify the inconsistency of the date with the Commissioning Certificates in section 3.1 of MR.		
1 st Response from PP	Date	12-July-2022
1. Declaration letter regarding Double Counting has been submitted to the assessment team. 2. Commissioning date has been corrected in section 3.1 of the updated MR.		
1 st Assessment by Audit Team	Status	Closed
Date	23-August-2022	
1. PP has submitted the declaration to VVB confirming there is no credit received or claimed under current monitoring period. 2. PP has updated the commissioning dates in the revised MR version 02 and found to be consistent with the provided commissioning certificates. Hence CL#01 is Closed		

Type	Date	28-June-2022
CAR#01	Reference	Section of Ver protocol: 1
Description of the Non Conformance		
1. PP is requested to update the Monitoring Report as per Latest Monitoring Report Template Version 4.1. 2. As per the Latest MR template the Headline on first page is in Font Century Gothic Size 13. 3. Please update the following sections i.e. (Contents 1.11 & 3.2) as per Latest VCS Monitoring Report Template Version 4.1.		
1 st Response from PP	Date	12-July-2022
1. Monitoring Report has been updated in latest template of version 4.1. 2. Font size has been corrected on first page of the updated MR. 3. Section 1.11 & 3.2 has been updated in MR.		
1 st Assessment by Audit Team	Status	Closed
Date	23-August-2022	
Assessment team has updated all the sections of MR version 02 in accordance with VCS MR template version 4.1. Hence accepted		

CAR#01 is Closed

Type	Date	28-June-2022
CAR#02	Reference	Section of Ver protocol: 1& section 4
Description of the Non Conformance		
1. PP is requested to explain the inconsistency of the geocoordinates in the MR with respect to the VCS PDD dated 28/03/2017 version 03. 2. PP is requested to provide calibration certificates for Hatuniya Site of the current monitoring period. The already provided certificates having date 23/04/2016 for (Check Meters) & 12/04/2016 for (Main meter) aren't applicable since the calibration period is only for 5 years. 3. PP is requested to explain how the date mentioned on Calibration certificates provided to VVB i.e. 08/04/2016 is applicable for the current monitoring period. Also please provide the Calibration certificates for Dhar site that justify the current monitoring period as mentioned here i.e. 13/07/2021 4. PP is requested to provide the calibration certificates for Vejalpar site of the current monitoring period as the certificates provided aren't applicable for this monitoring period. The date on the already provided certificates is 31/03/2016 which is not applicable since the calibration period is of 5 years only. 5. PP is requested to explain how the breakdown in January 2021 to June 2021 applicable to the current monitoring period 01-July-2021 to 31-March-2022. 6. Please provide breakdown details from July, 2021 to March 2022 as per current monitoring period 01-July-2021 to 31-March-2022		
1 st Response from PP	Date	12-July-2022
1. At the time of 2nd verification in Monitoring report, Geo-coordinates of the project activity have been revised by taking a deviation in registered project description as per the actual scenario and the same has been approved. That is why the coordinates mentioned in current monitoring report do not match that of VCS PD. 2. Latest calibration certificates has been provided to the verification team for Hatuniya site. 3. Latest calibration certificates has been provided to the verification team for Dhar site. 4. Latest calibration certificates has been provided to the verification team for Vejalpar site. 5. Breakdown details has been updated in Appendix 2 of the revised MR. 6. Breakdown reports has been provided to the verification team.		
1 st Assessment by Audit Team	Status	Open
Date	23-August-2022	
1. PP is requested to provide the document to verify the deviation raised and also kindly provide the same in section 3.2 of the current monitoring period MR. 2. Assessment team has checked the provided calibration certificates and still some calibration certificates of Vejalpur site and Hatuniya site are found to be inconsistent with the serial number mentioned in the MR version 02 and calibration certificates provided. 3. Assessment team has verified that PP has provided the breakdown details in the revised MR version 02 however PP is requested to provide the sample log book records of breakdown details for all the sites of the project activity. Hence CAR#02 is Open		
2 nd Response from PP	Date	24-August-2022

1.Deviation has been provided in section 3.2 of the updated MR. 2. Calibration certificate has been provided for Vejalpur site and Hatuniya site to the assessment team. 3. Breakdown details has been provided to the assessment team.				
2ndAssessment by Audit Team	Status	Open	Date	07-September-2022
1. Deviation has been verified from the previous FVR and MR provided. 2. PP is requested to provide the understandable calibration certificates to VVB as the provided ones does not contain clear information, kindly provide the proper calibration certificates for all sites. OPEN 3. PP has updated the breakdown details in revised MR version 03; however, they are not consistent with the breakdown data sheets provided to VVB. Kindly clarify, how breakdown data is inserted in MR version 03 dated 24/08/2022. OPEN Hence CAR#02 is Open				
3rd Response from PP			Date	09-September-2022
1. Resubmission of the Calibration certificates has been provided for all sites to the assessment team with the clear report. 2. Breakdown details has been checked and found consistent with data sheet and the same has been provided to the assessment team.				
3rd Assessment by Audit Team	Status	Open	Date	21-September-2022
1. PP has submitted the calibration certificates for all sites to VVB and found to be appropriate however PP is requested to submit the complete calibration certificate for Hatuniya site for both the meters 2. PP has provided the breakdown details in MR however; PP has been requested to clarify the criteria followed to mention the breakdown hours in MR and ER breakdown sub sheet. As assessment team have identified that most breakdown hours are not included in the breakdown table provided to VVB. PP is requested to kindly explain this with an example.				
4th Response from PP			Date	22-September-2022
1. Calibration certificates has been submitted for Hatuniya site to the assessment team with the clear copy and same has been signed by Assistance Engineer of MPPKVVCL and PP representative. 2. Major breakdown details have been provided in the revised monitoring report and supporting has been also submitted to the verification team for the review.				
4th Assessment by Audit Team	Status	Closed	Date	23-September-2022
1. PP has submitted the calibration certificates for the Hatuniya site in Madhya Pradesh and found to be consistent with the revised MR version 03.2 dated 22/September/2022. 2. PP has provided the explanation that they have incorporated only the major breakdown hours in MR thus no update in breakdown hours table found in revised MR version 03.2 dated 22/September/2022. Hence Accepted.				

CAR#02 is Closed

Type	Date	28-June-2022		
CAR#03	Reference	Section of Ver protocol: 5 (ER SHEET)		
Description of the Non Conformance				
1. PP is requested to provide JMRs or invoices for the month of March, 2022 for the following sites i.e.Hatuniya, Dhar, 10.5 MW Gujarat 2. PP is also requested to provide JMRs or invoices for the 4.5 MW site of Gujarat as mentioned in the ER sheet.				
1 st Response from PP		Date	12-July-2022	
1. JMR & Invoices of March month has been submitted to the verification team. 2. JMR of March month has been submitted to the verification team. And no invoice generated for this 4.5 MW site due to captive use.				
1 st Assessment by Audit Team	Status	Open	Date	23-August-2022
PP has provided the JMRs and Invoices for the month of March 2022 for all sites however PP has not provided the JMRs or invoices for 4.5 MW site of Gujarat but share certificates are provided. Hence CAR#03 is Open				
2 nd Response from PP		Date	24-August-2022	
Share certificates has been provided for 4.5 MW site of Gujarat to the verification team. And no invoices are generated for 4.5 MW Vejalpar site due to non-availability of PPA for this particular site.				
2 nd Assessment by Audit Team	Status	Open	Date	07-September-2022
PP has provided the share certificates for entire monitoring period to VVB and found to be consistent with the provided values in ER sheet. However, there is a column in ER Sheet for values from invoice- how is it valid when PP is stating that Invoice is not generated for 4.5 MW Vejalpar site due to non-availability of PPA and also not provided to VVB for assessment. Kindly clarify. Hence CAR #03 is Open				
3 rd Response from PP		Date	09- September -2022	
ER sheet has been updated for values from invoice column corrected and same has been provided to the assessment team.				
3 rd Assessment by Audit Team	Status	Closed	Date	21- September -2022

PP has updated the ER sheet and now the values from invoice is not included in 4.5 MW Vejalpar site which is as per the established procedure. Hence accepted.

CAR#03 is Closed

Type	Date	23-August-2022
CAR#04	Reference	Section of Ver protocol: MR
Description of the Non Conformance		
1 PP is requested to follow the VCS MR template version 4.1 for the text font style and font size throughout the MR. 2 PP is requested to update the link of EIA notification dated 2006 and 2009 as the link is found to be invalid in section 2.1 3 PP is requested to provide the grievance register photograph as evidence to verify the ongoing stakeholder communication in section 2.2. 4 PP is requested to clarify if they have provided the correct commissioning certificates to assessment team as the WTGs details are not consistent with the provided commissioning certificates in section 3.1. 5 PP is requested to clarify the inconsistency in the capacity of the project activity installed at Vejalpar site as the commissioning certificate provided and the capacity mentioned here does not match in section 3.1.		
1 st Response from PP	Date	24-August-2022
1. MR has been updated as per latest VCS MR template. 2. Link has been updated in section 2.1 of the updated MR. 3. Grievance register photograph has been provided to the assessment team. 4. Commissioning details has been updated in section 3.1 of the updated MR. 5. At Vejalpar site, 3 MW (1.5 MW x 2) WTG from the total capacity of 12 MW has been sold. The reason for this is due to the internal restructuring within the organization of Giriraj Enterprises. Again 3 MW WTG from the total capacity of 9 MW has been sold upon permission from Gujarat Energy Development Agency (GEDA) in January-2021. After that 1.5 MW WTG from the remaining capacity of 6 MW in February-2021 bringing the total capacity to 4.5 MW from February-2021 onwards. This deviation is of permanent nature (downsizing of the project capacity) and does not have any impact on the project applicability, baseline scenario and additionally and same has been requested deviation in section 3.2 of the updated Monitoring report.		
1 st Assessment by Audit Team	Status	Open
Date	07- September -2022	
1. MR has been updated according to the latest VCS MR template V4.1. CLOSED 2. PP has updated the link in section 2.1 of the MR version 03 dated 23.08.2022 CLOSED 3. PP has provided the grievance register photograph from the site hence accepted. CLOSED 4. PP has updated the commissioning details in section 3.1 of the updated MR version 03 CLOSED 5. PP is requested to clarify is the deviation is also applicable for the current monitoring period. OPEN 6. PP is requested to provide the IRR sheet analysis to verify the benchmark and sensitivity analysis result. OPEN Hence CAR#04 is Open		

3rd Response from PP			Date	09- September -2022
5- This deviation is not applicable for the current monitoring period and same has been updated in MR. 6- IRR sheet has been provided to the assessment team.				
3rd Assessment by Audit Team	Status	Open	Date	21- September -2022
1. PP has clarified that the deviation mentioned in section 3.2.2 is not applicable in current monitoring period but in the latest revised MR version 3.1 provided to VVB it is mentioned that it is valid in current monitoring period; <i>"This deviation is related to the Geo Coordinates of the project locations. At the time of registration, Latitude and Longitude has been mentioned in registered PDD. But at the time of project verification, we have observed some error in Latitude and Longitude. So, we have corrected this Latitude and Longitude in this monitoring period"</i>. Kindly clarify the same. OPEN 2. PP has provided the IRR sheet and found to be correct and justifies the statement mentioned by PP in section 3.2.2 . Hence accepted. CAR#04 is Open				
4th Response from PP			Date	22- September -2022
1. Only deviation-3 related to Geo coordinates is applicable for the current monitoring period and same has been mentioned in section 3.2 of the revised MR.				
4th Assessment by Audit Team	Status	Closed	Date	23- September -2022
Assessment team confirms that PP has requested only deviation-3 in current monitoring period. It is related to geo-coordinates of the WTGs which are already checked by our team during onsite and remote audit and found to be correct. This deviation was applicable since second monitoring period but it was not closed by previous DOEs, thus it was requested by PP in current monitoring period and since locations are already verified and approved in the previous verification number 3 and 4 and we as VVBs have also verified the same thus it is accepted. CAR#04 is Closed				

Type	Date	21- September -2022
CAR#05	Reference	Section of Ver protocol: 1
Description of the Non Conformance		
1. PP is requested to provide the reference of the values mentioned for electricity generated from the project activity over its lifetime in section 1.11 of MR version 3.1 submitted to VVB. 2. PP is requested to provide the reference of the values mentioned for emission removal from the project activity over its lifetime in section 1.11 of MR version 3.1 submitted to VVB.		
1stResponse from PP	Date	22- September -2022

1. Reference has been mentioned on footnote in section 1.11 of the revised MR. 2. Reference has been mentioned on footnote in section 1.11 of the revised MR.				
1stAssessment by Audit Team	Status	Closed	Date	23- September -2022
PP has updated the reference link in footnote for emission reduction value and electricity generated due to project activity during its lifetime in section 1.11 of MR version 3.2 dated 22/ September/2022. Hence accepted. CAR#05 is Closed				

Type		Date	DD/MM/YYYY	
FAR		Reference	Section of VAL/VER	
Description of the Non-Conformance				
1 st Response from PP		Date	DD/MM/YYYY	
1 st Assessment by Audit Team	Status	Open/Closed	Date	DD/MM/YYYY

APPENDIX C: COMPETENCE STATEMENT

Team Leader-



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Rakesh Chouhan
Nationality	India
Countries of Experience	India
Education Qualification	M. Tech- Energy Management B. E. - Chemical Engineering
Year of Experience	17 Years
Area of Expertise	Climate Change & Environment / Industry
Eligible Sectoral Scope	1. GHG emission reductions from fuel combustion

Roles

Team Leader	YES
Validator	YES
Verifier	YES
Financial Expert	No
Technical Reviewer	YES
TA Expert (TA1.1, TA1.2 and TA3.1)	YES

Technical Reviewer-



Certification Pvt. Ltd.

VKU.F50W. Competence Statement

COMPETENCE STATEMENT

Name	Sanjay Kumar
Nationality	Indian
Countries of Experience	India
Education Qualification	B.E. (Civil Engineering) M. Tech (Environmental Engineering)
Year of Experience	20 Years +
Area of Expertise	Climate Change & Environment Sustainable Development GHG Footprints
Eligible Sectoral Scope	TA 1.1 - Thermal energy generation and Renewables TA 1.2 - Renewables TA 3.1 - Energy Demand TA 6.1 - Construction TA 13.1 - Solid waste and wastewater TA 13.2 - Manure

Roles

Team Leader	YES
Validator	YES
Verifier	YES
Financial Expert	YES
Technical Reviewer	YES
TA Expert (1.1, 1.2, 3.1, 6.1, 13.1, 13.2)	YES