



BUNDLED WIND POWER PROJECT BY GIRIRAJ ENTERPRISES



Document Prepared By

LGAI Technological Center S.A. (Applus+ Certification)

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Summary:

Verification purpose: LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by Giriraj Enterprises to perform the 5th periodic verification of the project activity “Bundled Wind Power Project by Giriraj Enterprises” VCS ID 1669¹. The main purpose of this verification activity is to have an independent third party for the assessment of the project design, monitoring report to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements.

The project activity is bundled VCS project which involves installation and operation of 93 MW (62 Units of 1.5 MW WTG each) wind power project in Madhya Pradesh and Gujarat of India. As per registered VCS PD, the proposed capacity of the project was 112.5 MW. However, the capacity was downsized to 96 MW in previous verification for which the deviation was approved. Furthermore, the 3 MW WTG from the total capacity of 12 MW at Vejalpar site is sold upon permission from Gujarat Energy Development Agency (GEDA) and now project capacity stands at 93 MW. Project Participant has applied deviation for revised capacity. The project activity is using ReGen Power Tech make WTG. The entire power generated is exported to the NEWNE grid (now Indian grid). As the project involves power generation through renewable sources of energy, it will result in emission reductions due to displacement of grid electricity which is majorly fossil fuel based.

Start date of the project activity is 31/03/2015. This is the day on which first sets of WTGs was commissioned under the project activity which is as per commissioning certificate, registered JOINT VCS PD & MR version 02 dated 28/03/2017 and Joint Validation & Verification Report version 01 dated 30/03/2017.

The scope of the verification is the independent and objective review of the monitoring report

¹ <https://registry.verra.org/app/projectDetail/VCS/1669>

(MR). The MR is reviewed against the relevant criteria (see above) and decisions by the CDM Executive Board and VCS executive board, including the approved baseline and monitoring methodology. The verification was based on the guidance given in the CDM Validation and Verification Standard for the project activities, version 02.0, review against registered JOINT VCD PD & MR and JOINT Validation & Verification, CDM Project Standard for project activities, version 02.0; CDM Project Cycle Procedure for project activities, version 02.0 and VCS program guideline and standard version 4.0

This is the 5th verification under VCS and covers the activity from 01/03/2020 to 31/12/2020 (inclusive of both dates). The total emission reductions achieved for the project activity during the monitoring period has been 135,671 tCO₂e. The crediting period for VCS began on 31/03/2015 and will end on 30/03/2025. An undertaking from the project participant confirms that project will not claim any other scheme benefits for the concerned monitoring period.

A risk based approach has been followed to perform this verification activity. In the course of verification, 06 Corrective Action requests (CAR), 00 Clarification Requests (CLs) and 00 Forward action requests (FARs) were raised and successfully closed. The review of the Monitoring report and additional documents related to baseline and monitoring methodology; the subsequent background investigation, follow-up interviews and PP have provided DOE with sufficient evidence to verify the fulfilment of the stated criteria of VCS.

The assessment team has employed a risk based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the MR. The main focus of the assessment team is to identify the significant risks for the project implementation and the generation of VERs. The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the monitoring report combined.

The only purpose of the verification is its usage during the issuance process as part of the VCS project cycle. Therefore, LGAI Technological Center S.A. (Applus+ Certification) can't be held liable by any party for decisions made or not made based on the verification opinion, which will go beyond that purpose.

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for site visit or document verifications. The entire documents checked/WTGs verification conducted to arrive at positive verification conclusions.

1	Introduction	6
1.1	Objective.....	6
1.2	Scope and Criteria	6
1.3	Level of Assurance.....	7
1.4	Summary Description of the Project	7
2	Verification Process.....	8
2.1	Method and Criteria.....	8
2.2	Document Review	11
2.3	Interviews.....	11
2.4	Site Inspections.....	11
2.5	Resolution of Findings	12
2.5.1	Forward Action Requests.....	13
2.6	Eligibility for Validation Activities	13
3	Validation Findings.....	13
3.1	Participation under Other GHG Programs	13
3.2	Methodology Deviations.....	13
3.3	Project Description Deviations.....	14
3.4	Grouped Project	14
4	Verification Findings.....	15
4.1	Project Implementation Status	15
4.2	Safeguards	23
4.2.1	No Net Harm	23
4.2.2	Local Stakeholder Consultation.....	24
4.3	AFOLU-Specific Safeguards	24
4.4	Accuracy of GHG Emission Reduction and Removal Calculations	24
4.5	Quality of Evidence to Determine GHG Emission Reductions and Removals	26
4.6	Non-Permanence Risk Analysis.....	27
	APPENDIX 1: Documents Reviewed or Referenced (Verification)	29
	APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)	31
	APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS.....	35

APPENDIX 4: ABBREVIATIONS	37
APPENDIX 5: CALIBRATION DETAILS OF THE METERS.....	38

1 INTRODUCTION

1.1 Objective

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by “Giriraj Enterprises” to perform the 5th periodic verification of the “Bundled Wind Power Project by Giriraj Enterprises” under VCS standard and guideline version 4.0. The objective of this verification activity is to have an independent third party for the assessment of the project design, monitoring report and final verification report and to ensure a thorough assessment of the proposed project activity against the applicable CDM and VCS requirements. In particular;

- the project's baseline is assessed against “ACM0002, Version 17.0”
- the project's monitoring plan is assessed against “ACM0002, Version 17.0”
- the projects compliance with, the requirements of Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords under decision 3/CMP.1, the annexes to this decision, subsequent decisions and guidance made by COP/MOP & CDM Executive Board and other relevant rules, including the Host Country legislation and sustainability criteria along with VCS guideline and standard version 4.0
- CDM validation and verification standard for project activities, version 02.0
- CDM Project Standard for project activities, version 02.0
- CDM project cycle procedure for project activities, version 02.0
- VCS standard v4.0
- VCS program guideline v4.0

Verification is a requirement for all VCS projects and is seen as necessary to provide assurance to stakeholders of the quality of the project and its intended generation of verified emission reductions (VERs).

1.2 Scope and Criteria

The scope is defined as an independent and objective review of the Monitoring report (MR). The MR is reviewed against the criteria stated in Article 12 of the Kyoto Protocol, the CDM modalities and procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board and VCS standard and guideline version 4.0, including the approved baseline and monitoring methodology ACM0002 version 17.0. The verification was based on the requirements in the JOINT VCS PD & MR Version 02 dated 28/03/2017 and JOINT Validation & Verification Report Version 01 dated 30/03/2017, CDM validation and verification standard for project activities, Version 02.0, CDM Project

Standard for project activities, version 02.0, CDM project cycle procedure for project activities, version 02.0 and VCS program guideline and standard version 4.0

The audit team has employed a risk-based approach to assess the completeness and accuracy of the claims and conservativeness of the assumptions in the MR. The main focus of the audit team is to identify the significant risks for the project implementation and the generation of VERs. The verification is not meant to provide any consulting towards the project participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the Monitoring report. In line with Guidelines for Application of materiality in verifications, the verification team has conducted a complete verification of all the information presented in the monitoring report and data monitored as presented in the emission reduction calculation spread sheet. It invoices follows the paper trail back to the raw data such as meter reading records and invoices. There are no material errors, overestimation of ER, omission or misstatement. No sampling is used as the verification team has visited the WTGs along with the substations. The verification team has reviewed all the documents like commissioning certificates, JMR, invoices etc.

1.3 Level of Assurance

The verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for site visit or document verifications. The entire documents checked/Power plant verification conducted to arrive at positive verification conclusions.

1.4 Summary Description of the Project

The project “Bundled Wind Power Project by Giriraj Enterprises” is a bundled VCS project which involves installation and operation of 93 MW (62 Units of 1,5 MW WTG each) wind power project at different locations in Madhya Pradesh and Gujarat state of India. As per registered VCS PD, the proposed capacity of the project was 112.5 MW. However, the capacity was downsized to 96 MW in previous verification for which the deviation was approved. Furthermore, the 3 MW WTG from the total capacity of 12 MW at Vejalpar site is sold and now project capacity stands at 93 MW. The details of the bundled projects are given below:

Sr. No.	Project Capacity (in MW)	Owner of Project	Project Location	State
1	30 MW	Giriraj Enterprises	Hatuniya Site, Mandsaur	Madhya Pradesh
2	22.5 MW	Giriraj Enterprises	Dewas Site, Dewas	Madhya Pradesh
3	21 MW	Giriraj Enterprises	Dhar Site, Dhar	Madhya Pradesh
4	9.0 MW	Giriraj Enterprises	Vejalpar Site, Morbi	Gujarat
5	10.5 MW	Giriraj Enterprises	Vejalpar Site, Morbi	Gujarat

The electricity generated by the wind projects will be supplied to regional electrical grid which will be part of the NEWNE grid of India. As the project involves power generation through renewable sources of energy, it will result in emission reductions due to displacement of grid electricity which is majorly fossil fuel based.

The project activity was commissioned on 31/03/2015. The Project activity feed generated power to the NEWNE grid which is integral part of Indian grid now.

The monitoring period this VCS verification covered from 01/03/2020 to 31/12/2020 (inclusive of both dates) and the project activity is achieved 135,671 tCO₂e emission reductions during this monitoring period.

Assessment team checked the Commission of WTG with the commissioning Certificates and found correct. The commissioning dates of the WTGs are provided in Section 4.0 of this report. The project is implemented as per the description in the registered PD. No event observed during the current monitoring period which can alter or deviate from the methodology requirement.

2 VERIFICATION PROCESS

2.1 Method and Criteria

Verification Process: The project assessment is based on the “CDM validation and verification standard for project activities, Version 02.0 and “VCS standard and program guideline version 4.0” and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the VCS project activity are appointed.

Once the project is received by the assessment team, the members of the assessment team carried out:

1. A desk review of the Monitoring report against the registered PD and final validation report;
2. Follow-up interviews/onsite visit with project participant;
3. The resolution of outstanding issues and the issuance of the final verification report and opinion.

The prepared verification report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the VCS executive board.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. Applus+ Certification has developed a specific checklist customized for the project. The checklist demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

Appointment of the assessment team

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

The composition of audit team shall be approved by the Applus + Certification ensuring that the required skills are covered by the team.

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

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

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

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Mr. Sukanta Das	LA/TE	YES	YES	NA	YES
Mr. Jitendra Mohan Singh	A/TE	YES	YES	NA	YES
Mr. Denny Xue	TR	YES	YES	NA	NA

The detail regarding the assessment team is provided below in this report as Appendix 3

Document review

The Monitoring report version 1 submitted by the PP was reviewed against the approved methodology, registered PD, final validation report and other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done. A complete list of all documents and evidence material reviewed is included in this report below in Appendix 1.

Follow-up interviews

An onsite audit was conducted by Applus+ Certification. Audit team performed interviews, telephone conferences with project stakeholders to confirm selected information and to resolve issues identified in the document review. The detail is provided in this report.

Resolution of Clarification and Corrective Action Request

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 02 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Internal quality control

As final step of a verification of the final documentation including the verification report and the checklist have to undergo an internal quality control by the technical review committee, i.e. each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of Interest.

After confirmation of the PP the positive verification opinion and relevant documents are submitted to the VCS board through the VCS web-platform

2.2 Document Review

The details of the document observed during the verification process are listed below in Appendix 1 of this report

2.3 Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Bankar	Kailash	PP representative	05/03/2021-06/03/2021	Implementation of the project and monitoring. Baseline emission calculation, achieved emission reduction for the monitoring period, monitoring process followed onsite	Mr. Sukanta Das Mr. Jitendra Mohan Singh
2	Rao	Anjali	Consultant, EKI Energy Services Ltd.	05/03/2021 - 06/03/2021	Baseline emission calculation, achieved emission reduction for the monitoring period	

2.4 Site Inspections

Duration of on-site inspection: 05/03/2021-06/03/2021				
No.	Activity performed on-site	Site location	Date	Team member
1.	Assessment team checked the implementation of the project, Baseline emission, Emission reduction calculation, technical description of the project and Monitoring. Assessment team also checked that whether the monitoring plan as described in the VCS PD is actually practiced onsite. Also assessment team checked any change in host country criteria which may affect the baseline of the project activity. Assessment team also had a	Gujarat State, India Madhya Pradesh. State, India	05/03/2021 & 06/03/2021	Mr. Sukanta Das Jitendra Mohan Singh

discussion with Local stakeholders and checked grievance register placed onsite as per the continuous improvement measure of PP for the Local villagers.			
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2.5 Resolution of Findings

The objective of this phase of the Verification was to resolve the requests for corrective actions and clarification and any other outstanding issues from validation which need to be clarified for Applus+ Certification's positive conclusion on the Monitoring report. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the Client and Applus+ Certification to guarantee the transparency of the verification process, the concerns raised and responses given are summarized below in the Appendix 2.

The final MR Version 2 submitted by PP serves as the basis for the final assessment presented. Additional changes to the project during the verification process are not considered to be significant with respect to the main CDM/VCS objectives. The two CDM/VCS main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Areas of validation and verification findings	No. of CL	No. of CAR	No. of FAR
Project design document and Monitoring report	00	00	00
Description of project activity	00	03	00
Application of selected baseline and monitoring methodology and selected standardized baseline			
Applicability of methodology and standardized baseline	00	00	00
Deviation from methodology	00	00	00
Clarification on applicability of methodology, tool and/or standardized baseline	00	00	00
Project boundary	00	00	00
Establishment and description of baseline scenario	00	00	00
Demonstration of additionality	00	00	00
Emission reductions	00	01	00
Calibration details	00	01	00
Monitoring plan	00	00	00
No Net harm assessment	00	00	00
Local stakeholder consultation	00	01	00
Others (please specify)	00	00	00
Total	00	06	00

The list of findings and their resolution is presented in Appendix 2 of this report.

2.5.1 Forward Action Requests

This is 5th periodic verification of the project activity and no FAR was raised from 4th verification.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification, as Applus+ Certification holds the accreditation for Validation of projects under this Sectoral Scope.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project is not applied under any other GHG program like CDM, GS, hence not applicable.

3.2 Methodology Deviations

No deviation requested by PP.

3.3 Project Description Deviations

At the time of registration, the total capacity of the project activity was 112.5 MW. However, the same has been downsized to 93 MW due to:

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

The above deviation is already been approved during the 2nd monitoring period.

Furthermore, the 3 MW (1.5 MW x 2) WTG from the total capacity of 12 MW at Vejalpar site, Morbi, Gujarat has been sold upon permission from Gujarat Energy Development Agency (GEDA- A Govt of Gujarat Organization). The reason for this is due to the internal restructuring within the organization of Giriraj Enterprises.

As the total capacity of the project activity has been downsized, there is deviation of project description only. Assessment team confirms that due to the downsizing of the project capacity, there is no change in the applied methodology or the tools.

Impact of additionality due to downsizing of the project activity

The IRR for 13.5 MW capacity wind project 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% which is still below benchmark of 15.43%. Thus, verification team confirms that after further downsizing of 12 MW to 9.0 MW, the equity IRR is below the benchmark value. Hence, there is no impact on the project additionality.

From the above analysis, it can be seen that after downsizing of the 13.5 MW project to 12.0 MW and further to 9 MW, the equity IRR is below the benchmark value. Hence, there is no impact on the project additionality.

As the downsizing of the project activity does not have impact on scale & methodology of the project activity, additionality of the project activity with downsized capacity and will not lead overestimation of ER value, hence deviation is accepted by the audit team.

3.4 Grouped Project

This is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the onsite audit with PP representative, it was concluded that the project is implemented as per the requirement of the registered VCS PD and approved monitoring plan. During the current monitoring period, it was observed through breakdown log sheet records onsite that no unforeseen incident/event evolved which can impact the operation of the project activity. The project underwent continuous operation and only scheduled maintenance 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 meters during onsite visit and also cross checked the same via Google software. Moreover, assessment team confirm that the latitudes and longitudes as mentioned in the registered PDD is correct. The WTG wise latitudes and longitudes are confirmed below:

S. 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' 38.4492"	76° 56' 49.0040"
2		RISPL/1500 /16-17/4050					23° 08' 13.4232"	76° 56' 36.1521"
3		RISPL/1500 /16-17/4051					23° 08' 05.4420"	76° 56' 53.2250"
4		RISPL/1500 /16-17/4052					23° 07' 58.2384"	76° 58' 13.4000"
5		RISPL/1500 /16-17/4053					23° 07' 52.4352"	76° 56' 48.2921"
6		RISPL/1500 /16-17/4054					23° 08' 04.5960"	76° 57' 58.8007"
7		RISPL/1500 /16-17/4055					23° 07' 28.3728"	76° 57' 54.4416"
8	Giriraj Enterprises	RISPL/1500 /16-17/4542	Khakhrechi	Maliya	Morbi	Gujarat	23° 04' 36.4872"	76° 53' 03.0658"
9		RISPL/1500 /16-17/4543					23° 05' 11.8644"	76° 53' 04.9294"
10		RISPL/1500 /16-17/4545					23° 05' 00.0420"	76° 52' 42.3122"
11		RISPL/1500 /16-17/4547					23° 05' 07.5228"	76° 53' 19.9076"

12		RISPL/1500 /16-17/4548					23° 04' 35.1336"	76° 53' 53.5708"
13		RISPL/1500 /16-17/4549					23° 05' 18.3840"	76° 53' 57.6920"
14		RH3- 01	Ratikhedi	Mandsaur	Mandsaur		23° 53' 55.3848"	81° 14' 00.4539"
15		RH3- 02	Bholiya	Mandsaur	Mandsaur		23° 52' 51.1176"	81° 13' 50.1898"
16		RH3- 03	Ratikhedi	Mandsaur	Mandsaur		23° 53' 15.6300"	81° 13' 52.2136"
17		RH3- 04	Ratikhedi	Mandsaur	Mandsaur		23° 53' 45.4092"	81° 14' 18.1189"
18		RH3- 05	Ratikhedi	Mandsaur	Mandsaur		23° 53' 50.4636"	81° 14' 08.8622"
19		RH3- 06	Kankarwa	Jaora	Ratlam		23° 51' 36.6264"	81° 13' 46.2748"
20		RH3- 07	Bholiya	Mandsaur	Mandsaur		23° 52' 34.2552"	81° 14' 02.0410"
21		RH3- 08	Kankarwa	Jaora	Ratlam		23° 51' 31.3164"	81° 13' 54.2911"
22		RH3- 09	Bholiya	Mandsaur	Mandsaur		23° 52' 05.6028"	81° 13' 22.5297"
23	Giriraj Enterprises	RH3- 10	Bholiya	Mandsaur	Mandsaur	Madhya Pradesh	23° 51' 57.0204"	81° 13' 20.6057"
24		RH4- 01	Jogikheda	Mandsaur	Mandsaur		23° 55' 44.0760"	81° 13' 01.3611"
25		RH4- 02	Ratikhedi	Mandsaur	Mandsaur		23° 54' 41.4036"	81° 13' 35.2470"
26		RH4- 03	Kuchdod	Mandsaur	Mandsaur		23° 54' 29.5380"	81° 14' 57.4242"
27		RH4- 04	Khajuri Anjana	Mandsaur	Mandsaur		23° 55' 26.4576"	81° 13' 22.4496"
28		RH4- 05	Ratikhedi	Mandsaur	Mandsaur		23° 54' 32.5872"	81° 13' 38.4149"
29		RH4- 06	Khajuri Anjana	Mandsaur	Mandsaur		23° 55' 36.1776"	81° 13' 23.8105"
30		RH4- 07	Khajuri Anjana	Mandsaur	Mandsaur		23° 55' 31.0548"	81° 14' 19.1617"
31		RH4- 08	Khajuri Anjana	Mandsaur	Mandsaur		23° 55' 18.7068"	81° 13' 29.2986"
32		RH4- 09	Khajuri Anjana	Mandsaur	Mandsaur		23° 54' 41.8464"	81° 14' 45.3159"

33		RH4- 10	Kuchdod	Mandsaur	Mandsaur		23° 54' 33.3612"	81° 14' 45.5120"
34	Giriraj Enterprises	TK- 01	Bhoj Pura	Tonk Khurd	Dewas	Madhya Pradesh	23° 05' 00.6252"	82° 15' 42.1007"
35		TK- 04	Bhoj Pura				23° 05' 31.8588"	82° 15' 39.8266"
36		TK- 05	Bhoj Pura				23° 05' 44.5272"	82° 15' 37.3439"
37		TK- 06	Bhoj Pura				23° 05' 53.0052"	82° 15' 38.1612"
38		TK- 07	Bhoj Pura				23° 06' 01.4472"	82° 15' 39.4702"
39		TK- 08	Bhoj Pura				23° 06' 09.8568"	82° 15' 40.9898"
40		TK- 09	Devli				23° 06' 18.1944"	82° 15' 39.5913"
41		TK- 10	Devli				23° 06' 30.4740"	82° 15' 44.6623"
42		TK- 12	Ranayal Kala				23° 06' 42.4404"	82° 16' 05.0565"
43		TK- 14	Ranayal Kala				23° 07' 11.2584"	82° 15' 35.2710"
44		TK- 02	Bhoj Pura				23° 05' 06.8244"	82° 15' 27.0816"
45		TK- 13	Ranayal Kala				23° 07' 03.6336"	82° 16' 05.7477"
46		TK- 15	Sankely				23° 06' 55.4580"	82° 16' 35.7260"
47		TK- 16	Sankely				23° 07' 22.2060"	82° 16' 04.9380"
48		TK- 17	Sankely				23° 07' 33.5352"	82° 15' 59.0681"
49	Giriraj Enterprises	TIR- 04	Labrawada	Dhar	Dhar	Madhya Pradesh	22° 38' 02.7636"	81° 15' 53.0078"
50		TIR- 05	Navgaon				22° 38' 26.1024"	81° 16' 18.3134"
51		TIR- 07	Kalukhedi				22° 38' 30.7356"	81° 16' 10.4044"
52		TIR- 09	Kalukhedi				22° 38' 36.6648"	81° 16' 03.5137"
53		TIR- 10	Chikliya				22° 37' 52.0104"	81° 15' 46.2258"

54		TIR- 03	Navgaon				22° 37' 59.3724"	81° 16' 16.6493"
55		TIR- 06	Navgaon				22° 38' 09.5820"	81° 16' 19.5422"
56		TIR- 12	Navgaon				22° 39' 03.8196"	81° 17' 01.1698"
57		TIR- 13	Navgaon				22° 39' 03.6072"	81° 17' 28.7447"
58		TIR- 14	Navgaon				22° 37' 52.8528"	81° 16' 25.5701"
59		ADD- 02	Navgaon				22° 37' 50.0016"	81° 16' 57.2696"
60		ADD- 03	Navgaon				22° 38' 26.7720"	81° 17' 03.4761"
61		ADD- 04	Navgaon				22° 38' 37.4388"	81° 17' 03.6032"
62		ADD- 05	Khilchipura				22° 38' 55.9428"	81° 17' 41.4823"

Assessment team checked the commissioning certificate and confirmed that the dates of Commission for the WTGs are correct. Assessment team also confirm during the onsite visit that there is no change in project design except deviation requested and the project is implemented as per the description provided in the registered PDD. Commissioning dates of WTGs are given below:

S. No.	Project Owner	Machine ID	Date of commissioning	State
1	Giriraj Enterprises	RISPL/1500/16-17/4049	02/03/2017	Gujarat
2		RISPL/1500/16-17/4050		
3		RISPL/1500/16-17/4051		
4		RISPL/1500/16-17/4052		
5		RISPL/1500/16-17/4053		
6		RISPL/1500/16-17/4054		
7		RISPL/1500/16-17/4055		
8	Giriraj Enterprises	RISPL/1500/16-17/4542	31/03/2017	Gujarat
9		RISPL/1500/16-17/4543		
10		RISPL/1500/16-17/4545		
11		RISPL/1500/16-17/4547		
12		RISPL/1500/16-17/4548		
13		RISPL/1500/16-17/4549		
14	Giriraj Enterprises	RH3- 01	31/03/2015	Madhya Pradesh
15		RH3- 02		

16		RH3- 03		
17		RH3- 04		
18		RH3- 05		
19		RH3- 06		
20		RH3- 07		
21		RH3- 08		
22		RH3- 09		
23		RH3- 10		
24		RH4- 01		
25		RH4- 02		
26		RH4- 03		
27		RH4- 04		
28		RH4- 05		
29		RH4- 06		
30		RH4- 07		
31		RH4- 08		
32		RH4- 09		
33		RH4- 10		
34	Giriraj Enterprises	TK- 01	30/05/2016	Madhya Pradesh
35		TK- 04		
36		TK- 05		
37		TK- 06		
38		TK- 07		
39		TK- 08		
40		TK- 09		
41		TK- 10		
42		TK- 12		
43		TK- 14		
44		TK- 02		
45		TK- 13		
46		TK- 15		
47		TK- 16		
48		TK- 17		
49	Giriraj Enterprises	TIR- 04	31/03/2016	Madhya Pradesh
50		TIR- 05		
51		TIR- 07		
52		TIR- 09		
53		TIR- 10		
54		TIR- 03		
55		TIR- 06		
56		TIR- 12		

57		TIR- 13		
58		TIR- 14		
59		ADD- 02		
60		ADD- 03		
61		ADD- 04		
62		ADD- 05		

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 Manufactures. Assessment team confirms that the technical parameters are consistent with the registered VCS PD.

The major technical specifications of the WTG are as follows:

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 operation and maintenance (O & M) of the project activity is being done by the O & M team of the company. The same has been verified with the interview with O & M team during the site visit.

The assessment team confirmed through onsite visit with PP representative that there is no proposed or actual change to the project design during this monitoring period. It was observed that the monitoring plan was implemented as per the registered VCS PD and applied methodology ACM0002, Version 17.0. The organisational role and responsibility as mentioned in the registered VCS PD is followed onsite. Meters are calibrated as per

calibration frequency in registered VCS PD. All the emergency preparedness as mentioned in the registered VCS PD is followed onsite and no discrepancies were found regarding the same.

The assessment team observed that the project is implemented in accordance with the registered VCS PD, final validation report and approved methodology and thus no clarification/deviation is sought. CAR 01, CAR 03 and CAR 04 were raised related to implementation of project activity during the verification process and closed successfully. Please refer below Appendix 2 for the detail closure of the CARs.

Assessment team confirms following during the verification site visit:

1. Start date of the project is 31/03/2015 which is the date of commissioning of the WTGs No. RH3-01 to RH3-10 and RH4-01 to RH4-10 as per commissioning Certificates.
2. An undertaking letter has been submitted by PP for double counting with any other GHG program. PP also has given a written declaration that project has not claimed other form of GHG credit for the concerned monitoring period.
3. Assessment team confirms that this is the 5th monitoring under VCS and covers the activity from 01/03/2020 to 31/12/2020 (inclusive of both dates). VCS crediting period start from 31/03/2015 and 30/03/2025 will be the end date of the crediting period. The GHG credits from 01/03/2012 to 31/12/2020 will be claimed under VCS only. At any point of time during the crediting period, the project proponent will abide by the "Double Counting".
4. Assessment team checked and found that the Project proponent of the project activity is as below for the current monitoring period:

Organization name	Giriraj Enterprises
Contact person	Mr. Prafulla Khinvasara
Title	CEO-Renewable Energy Projects
Address	Malpani House, New Nagar Road, Tal- Sangamner, Dist – Ahmednagar, Maharashtra, India
Telephone	-
Email	-

5. Assessment team also checked the details of other entity and found that Other entity involved in this project is

Organization name	EKI Energy Services Limited
Contact person	Anjali Rao

Title	Project Manager
Address	Office No. 201, EnKing Embassy, Plot No. 48, Scheme No. 78, Part II, Vijay Nagar INDORE – 452010, India.
Telephone	+91 9109120640
Email	anjali@enkingint.org / registry@enkingint.org

6. The quantified emission reduction calculation for the monitoring period is correct and conservative. Assessment team also compared actual VER with the estimated VER and found that the actual VER is 135,671 tCO₂e which is 9.08% lower than the estimated emission reduction 149,221 tCO₂e (177,993tCO₂e/ 365 days* 306 days) during this monitoring period. The estimated emission reductions 149,221 tCO₂e is calculated based in the ex-ante generation of reduced capacity to 93 MW. The estimated value calculation is found to be appropriate. Moreover, the estimated value based on reduced capacity is checked with the actual value of reduced capacity and ER is 9.08% less than the estimated value. Further, the lower emission reductions achieved by the project activity is due to lower wind flow pattern and low PLF attained by the wind power plant during the current monitoring period.

Ministry of Environment & Forests, Government of India has stipulated following indicators for sustainable development in the interim approval guidelines for GHG projects.

1. Social well-being
2. Economic well-being
3. Environmental well-being
4. Technological well-being

Social well-being: The project activity lead to direct and indirect benefits to the region through the generation of local employment in areas in and around the project activity, and the improved conditions for developing economic activities, which may result from the empowerment of vulnerable sections of society dwelling near the project area due to the creation of employment opportunities. The project activity supplies electricity to the grid and this ultimately benefited the local communities with improved power supply and in this case this power supply is renewable, hence assisting in the quest for energy security of the current and future generations.

Economic well-being

The VCS project activity generates permanent and temporary employment opportunity within the vicinity of the project. The electricity supply in the nearby area improves which directly and indirectly improves the economy and life style of the area.

Environmental well-being

Wind power is one of the cleanest renewable energy powers and does not involve any fossil fuel. There are no GHG emissions. The impact on land, water, air and soil is negligible. Thus the project activity contributes to environmental well-being without causing any negative impact on the surrounding environment.

Technological well-being

The project activity is step forward in harnessing the untapped wind energy and further diffusion of the wind technology in the region. The project activity leads to the promotion and demonstrates the success of wind projects in the region which further motivate more investors to invest in wind power projects. Hence, the project activity leads to technological well-being.

In view of the above, the PP has considered that the project activity profoundly contributes to the sustainable development.

4.2 Safeguards

4.2.1 No Net Harm

No potential environment or socio-economic matter was found during the site visit. The project is renewable energy project and thus no negative impact observed onsite. 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 14th September 2006² and thus an EIA is not required. Ministry of Environment & forests vide their OM J-11013/41/2006 - IA II (I) dated 13th May 2011, has re-affirmed this and exempted wind power plants from EIA and Environmental Consent requirement.

The project activity promotes environmental and socio-economic well-being as it results in zero GHG emissions due to installation and operation of clean, renewable energy technology for electricity generation. The report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013³. This report clearly mentioned that solar/Wind power project activity operations do not result in direct air pollution, noise pollution. Moreover, also as per the Central Pollution Control Board of India notification⁴ solar/wind project falls under White Category and are practically non-polluting.

² <http://envfor.nic.in/legis/eia/so1533.pdf>

³ <https://smartnet.niua.org/sites/default/files/resources/report-on-developmental-impacts-of-RE.pdf>

⁴ http://envfor.nic.in/sites/default/files/Latest_118_Final_Directions.pdf

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. For on-going stakeholder's communication, PP have maintained feedback/complaint register at the site office. All the stakeholders are happy with the implementation and operation of the project activity and no negative comments envisaged for the project activity. Complaint/grievances feedback form has been kept at site as a part of ongoing communication with stakeholders in line with clause 3.16.17 of VCS Standard, ver. 4.0 and appropriate actions taken time to time by PP.

Assessment team checked the grievance register provided by PP and found that local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the project. During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the ongoing stakeholder mechanism is adequate and appropriate.

4.3 AFOLU-Specific Safeguards

This section is not applicable as this project activity is a non-AFOLU project activity.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

Means of verification	The verification team assessed whether the data and calculations of GHG emission reductions achieved resulting from the VCS PD. The verification team has checked whether calculations of baseline GHG emissions, project GHG emissions and leakage GHG emissions have been carried out in accordance with the formulae and methods described in the monitoring plan of the VCS PD
Findings	CAR 05 was raised during the verification process and closed successfully. Please refer Appendix 2 of this report for the detail closure of the CAR.
Conclusion	Ex-ante parameters: Combined margin CO₂ emission factor of grid ($EF_{grid,CM,y}$) is fixed ex-ante for the entire crediting period and as per the validated JOINT VCS PD & MR, same is fixed 0.9777 tCO₂/MWh. Values are as follows: $EF_{grid,OM,y} = 0.9941 \text{ tCO}_2/\text{MWh}$ $EF_{grid,BM,y} = 0.9285 \text{ tCO}_2/\text{MWh}$ $EF_{grid,CM,y} = 0.9777 \text{ tCO}_2/\text{MWh}$ Verification team confirms that the same is used in the emission reductions calculations. Baseline Emissions: The baseline Emissions for a given year are calculated by multiplying the energy baseline (EB) with the grid emission factor. The grid in this case is "Indian Grid". Formula Used:-

	$BE_y = EG_{PJ,y} \times EF_{grid,CM,y}$ Where, BE_y = Baseline Emissions in year y; tCO₂ $EG_{PJ,y}$ = Quantity of net electricity generation supplied by the project(Wind) plant/unit to the grid in year y (MWh) $EF_{grid,CM,y}$ =Combined margin CO₂ emission factor for grid connected power generation in year y calculated using the “Tool to calculate the emission factor for an electricity system” (tCO₂/MWh) Ex-post parameter: $EG_{PJ,y}$ (Quantity of net electricity generation supplied by the project(Wind) plant/unit to the grid in year y): Net electricity supplied to grid is calculated as the difference between “export” and “import” of electricity through the dedicated SEB main and check meter installed at the delivery point (i.e. substation) and recorded in JMRs The verification team has checked the entire monthly JMRs reports for net electricity generated and supplied to the grid and cross checked same with the invoices raised by OO towards state utilities for the monitoring period. All the values are found correct. All the parameter are monitored and recorded as per the monitoring plan in the registered JOINT VCS PD & MR. Verification tea, has cross checked the emission reduction calculation sheet and monitoring data with the JMRs sheet and invoices and found all the values are consistent. All relevant monitoring parameters have been verified with regard to the appropriateness of the applied measurement/determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors. BE_y baseline emissions, tCO₂e $BE_y = 138,768.86 \text{ MWh} \times 0.9777 \text{ tCO}_2\text{e/MWh}$ $= 135,671 \text{ tCO}_2\text{e (rundown values)}$ Project Emission (PE_y): As per applied methodology ACM0002, version 17.0 and the registered JOINT VCS PD & MR, project emission is considered zero as the project activity involved wind power generation. Leakage: As per applied methodology ACM0002, version 17.0 and registered JOINT VCS PD & MR, Leakage emissions are not considered for the project activity. Hence, $ER_y = BE_y - PE_y - L_y = 135,671 \text{ tCO}_2\text{e} - 0 - 0 = 135,671 \text{ tCO}_2\text{e (rundown values)}$
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	Verification team confirms that the monitoring has been carried out in accordance with the monitoring plan contained in the registered JOINT VCS PD & MR,
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4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

Means of verification	The verification team checked the Calibration details of the monitoring meters with the calibration certificates.
Findings	CAR 06 was raised during the verification process and closed successfully. Please refer Appendix 2 of this report for the detail closure of the CAR
Conclusion	The metering is being carried out by electronic tri-vector bi-directional energy meter of secure make; accuracy class 0.2s(main & check) at the State Electricity Board (SEB) substation. For measuring the energy delivered by the project activity, one set of main meters (part of interconnection facilities) and check meters are provided at each feeder by the project proponent and respective electricity distribution company. These meters record several parameters including electricity exported & imported. These electricity meters are being used by state electricity board for JMR (Joint Meter Reading) electricity generation statements. which measured both export and import at state electricity board substation. This electricity meter is being used by state electricity board for Joint Meter Readings. The meters are monitored continuously and cumulative readings are taken at the end of the month by joint meter reading procedures. All the energy meters are under the control of state utility These are sealed by the state Unitalities. The calibration frequency of meters is once in five year. The Calibration details of meters are provided in Appendix 5. No delay in Calibration is observed by the assessment team for the current monitoring period. The meters are calibrated by the meter testing division of the state utility in the presence O & M contractor/ project participants representative and state utilities office to ensure the working of meter within permissible limits. Verification team checked the calibration details of the monitoring meters with calibration certificates submitted by PP and confirms that meters are calibrated as per calibration frequency mentioned in the registered JOINT VCS PD & MR. Calibration details are provided in Annexure -5 of this report. No unforced error observed and feeder wise WTGs location is also checked and found correct. Verification team confirms that the energy meters are made of Secure of accuracy class of 0.2s, are calibrated as per the national standards followed by the electricity board.

4.6 Non-Permanence Risk Analysis

No.	Risk that could lead to material errors, omissions or misstatements	Assessment of the risk		Response to the risk in the verification plan and/or sampling plan
		Risk level	Justification	
NA	NA	NA	NA	NA

5 VERIFICATION CONCLUSION

Applus+ Certification has been engaged by Giriraj Enterprises to perform the 5th periodical verification of the “Bundled Wind Power Project by Giriraj Enterprises”

The Giriraj Enterprises is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project’s Monitoring Plan in the registered JOINT VCS PD & MR and the applied methodology ACM0002, Version 17.0.

Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakesh accord, as well as those defined by the CDM Executive Board. Our approach is risk-based, drawing on an understanding of the risks associated with reporting GHG emissions data and the controls in place to mitigate these. Further, the verification has been planned and organized to achieve a Reasonable Level of assurance as per the requirement of VCS. No sampling procedure applied for site visit or document verifications. The entire documents checked/Power plant verification conducted to arrive at positive verification conclusions. The verification team can confirm that:

- the project is operated as planned and described in the project document;
- the monitoring plan is as per the applied methodology;
- the monitoring process in Monitoring Report is as per the PD
- the development and maintenance of records and reporting procedures are in accordance with the monitoring plan;
- the installed equipment being essential for generating emission reduction runs reliably and is calibrated appropriately;
- the monitoring system is in place and generates GHG emission reductions data;
- the GHG emission reductions are calculated without material misstatements.
- A Reasonable Level of assurance was achieved as planned during verification process.
- Verification period: 01/03/2020 to 31/12/2020(inclusive of both days)

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)
2020	135,671	0	0	135,671
Total	135,671	0	0	135,671

APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

No.	Author	Title	References to the document	Provider
1	NA	Commissioning certificates of the WTGs	Commissioning certificates	Project participant
2	NA	Contract of the project participant with the DOE	Contract document signed between PP and DOE	Project participant
3	NA	The operational lifetime of the project activity from the manufacturer = (Technical specifications)	Manufacturer technical specifications	Project participant
4	NA	Registered JOINT VCS PD & MR	https://registry.verra.org/app/projectDetail/VCS/1669	Project participant
5	NA	Calibration Certificates of energy meters	Calibration Certificates	Project participant
6	NA	Emission reduction sheet version 01	ER sheet version 01 dated 20/02/2021	Project participant
7	NA	Emission reduction sheet version 02	ER sheet version 02 dated 18/03/2021	Project participant
8	NA	MR version 01	20/02/2021	Project participant
9	NA	MR version 02	18/03/2021	Project participant
10	NA	Power Purchase Agreement (PPA)	PPA	Project Participant
12	NA	4th Periodic Verification Report	Version 01, dated 06/07/2010	Project participant
14		Final VCS validation report	Version 01, Dated 29/04/2020	Project participant
15	NA	Tools/ guidelines used in the project activity - Glossary of CDM terms version 07 - VCS verification report template version 4.0	UNFCCC CDM/VCS web site	UNFCCC
16	NA	Monthly statement- JMR for the complete monitoring period	Monthly statement of electricity export and Import	Project participant
17	NA	Invoices for the complete monitoring period	Invoice	Project participant
18	NA	Declaration regarding no participation in other GHG program for the concerned monitoring period	17/03/2021	Project participant

19	NA	Break Sown records	NA	Project participant
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APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

Project Implementation Status

CAR ID	01	Section no.	4.1	Date: 08/03/2021
Description of CAR				
In the registered project description (PD), total installed capacity of the project is 112.5 MW. However, only 96 MW is considered in monitoring report. Further, no deviation is requested. Corrective action is sought.				
Project participant response				Date: 18/02/2021
At the time of registration, the total capacity of the project envisaged was 112.5 MW. Till 3 rd verification the capacity of the project was downsized to 96 MW. This is because of following reasons- 1. 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 2. The earlier, 15 MW capacity wind project by Giriraj Enterprises at Khareda site, Gujarat has been cancelled by PP and has not been commissioned. The above deviation is already been approved during the 2nd monitoring period. 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 upon permission from Gujarat Energy Development Agency (GEDA- A Govt of Gujarat Organization). The reason for this is due to the internal restructuring within the organization of Giriraj Enterprises. Hence, at present the project capacity stands at 93.0 MW				
Documentation provided by project participant				
VCS MR V02				
DOE assessment				Date: 26/03/2021
PP has clarified that total capacity of the project was downsized to 96 MW and deviation was approved during the previous verification as 13.5 MW capacity wind project by Giriraj Enterprises at Vejalpar site, Gujarat has been downsized to capacity of 12.0 MW; and 15 MW capacity wind project by Giriraj Enterprises at Khareda site, Gujarat has been cancelled by PP and has not been commissioned. Furthermore, 3 MW (1.5 MW x 2) WTG from the total capacity of 12 MW at Vejalpar site, Morbi, Gujarat has been sold upon permission from Gujarat Energy Development Agency (GEDA- A Govt of Gujarat Organization) due to the internal restructuring within the organization of Giriraj Enterprises. Now the project capacity stands at 93.0 MW. PP has applied deviation during the				

current monitoring period for further downsized of total capacity in the bundled project activity.

PP has demonstrated that the equity IRR for 13.5 MW capacity wind project at Vejalpar site, Gujarat at the time of investment decision making was 6.92% and the benchmark was 15.43%. Whereas, equity 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%. Hence acceptable to VVB.

CAR closed.

CAR ID	02	Section no.	4.1	Date: 08/03/2021
Description of CAR				
During desk review of documents provided by PP, assessment team found that the following documents are missing				
1. Commissioning certificates of all WTGs				
2. O & Management Agreement				
3. Power purchase agreement of all project under bundled project activity				
Corrective action is sought.				
Project participant response				Date: 18/03/2021
The requested documents has been submitted.				
Documentation provided by project participant				
Commissioning certificates, O & M agreements and PPAs				
DOE assessment				Date: 26/03/2021
1. Commissioning Certificates of all WTGs under bundled project activity is now submitted by the PP. Assessment team has checked the same and confirms that commissioning dated mentioned Section .15 of monitoring report is correct.				
2. PP has now submitted the copies of O & M Agreement signed with M/s ReGen Infrastructure & Services Private Limited and M/w ReGen Powertech Limited for Dewas, Dhar, Hatuniya Sites and Vejalpar respectively.				
3. PP has submitted the Power Purchase agreement for project activity under bundled except for 12 MW plant located in Gujrat by Giriraj Enterprises. PPA is signed with MP Power Management Company Limited for sites Dewas, Dhar, Hatuniya and for Vejapur sites with Gujarat Urja Vikas Nigam Limit.				
CAR closed.				

CAR ID	03	Section no.	4.1	Date: 08/03/2021
Description of CAR				
During the review of documents submitted by PP, it was found that the following documents are missing;				
1. Breakdown/plant logbook. Also, the same is missing in the monitoring report				
2. Declaration regarding avoidance of double counting of emission reductions in the other GHG trading programmes and REC mechanism of India.				
PP is requested to the provide the above documents to assessment team				

Project participant response	Date: 18/03/2021
1). Breakdown details are now being submitted and the same has been updated in monitoring report. 2). Declaration regarding no double counting has been included in this submission.	
Documentation provided by project participant	
Breakdown details, Declaration & VCS MR V02	
DOE assessment	Date: 26/03/2021
1. PP has submitted the breakdowns/plant log books to assessment team and also included in Appendix II of revised MR. Assessment team confirms that there is no major breakdown observed during the current monitoring period. 2. PP has also submitted the declaration dated 17/03/2021 regarding avoidance of double counting of emission reductions in the other GHG trading programmes and REC mechanism of India. CAR closed.	

Local stakeholder consultation

CAR ID	04	Section no.	4.2.2	Date: 08/03/2021
Description of CAR				
PP is requested to submit supporting documents for ongoing local stakeholders consultation including grievance register for verification.				
Project participant response				Date: 18/03/2021
Supporting for local stakeholders consultation has been attached in this submission.				
Documentation provided by project participant				
Grievance register				
DOE assessment				Date: 26/03/2021
PP has kept dedicated Visitor register cum grievance register at the project site for ongoing communication which is accessible to stakeholders to provide their feedback on the project Assessment team confirms that during the current monitoring period, no any grievances have been received. PP has also submitted the copy of grievance register to assessment team. CAR closed.				

Accuracy of GHG Emission Reduction and Removal Calculations

CAR ID	05	Section no.	4.4	Date: 08/03/2021
Description of CAR				
- PP requested to submit complete set of JMR and invoices for complete monitoring period. Further, cross check process for complete WTGs is missing in emission reduction calculation spreadsheets. Therefore, the ER calculation cannot be confirmed by the assessment team at this stage of Verification. - Data/parameter notation is not consistent with the VCS PD in Section 4.4 of MR - Grid emission factor mentioned in Section 5 of MR is not consistent. Corrective action is sought.				
Project participant response				Date: 18/03/2021
- Set of JMRs/Invoices has now been submitted for the complete monitoring period. - Data/parameter notation is now being made consistent with the VCS PD in Section 4.4 of MR - Grid emission factor mentioned in Section 5 of MR is now being made consistent.				

Documentation provided by project participant	
JMRs & Invoices, VCS MR V02	
DOE assessment	Date: 26/03/2021
- PP has now submitted the copies of monthly JMRs and invoices. Assessment team has checked export and import of electricity in emission reductions sheet with monthly JMRs and found correct. Also, net export of electricity to grid is also cross checked. - PP has now corrected Data/parameter notation in Section 4.4. of revised monitoring report. - Correction of Grid emission factor is now made in Section 5 of revised monitoring report.	
CAR closed.	

Quality of Evidence to Determine GHG Emission Reductions and Removals

CAR ID	06	Section no.	4.5	Date: 08/03/2021
Description of CAR				
PP requested to submit calibration certificates of energy meters for verification to assessment team. Therefore, the ER calculation for delay in Calibration (if any) cannot be confirmed by the assessment team at this stage of Verification.				
Project participant response				Date: 18/03/2021
Energy calibration certificates has been attached in this submission.				
Documentation provided by project participant				
Calibration reports				
DOE assessment				Date: 26/03/2021
PP has submitted calibration certificates of all meters. The same have been reviewed by the assessment team and confirms calibration of meters are in line with the calibration frequency in VCS PD, there are no delayed in calibration of meters. The details of meters are provide in Appendix I of revised monitoring report.				
CAR closed				

APPENDIX 3: COMPETENCE OF TEAM MEMBERS AND TECHNICAL REVIEWERS

Verification team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Desk review	On-site inspection	Interview(s)	Verification findings
1.	Lead Auditor/Technical Expert	OR	DAS	SUKANTA	TQC-Outsourced entity	Yes	Yes	Yes	Yes
2	Auditor/Technical Expert	OR	Singh	Jitendra Mohan	TQC Outsourced entity	Yes	Yes	Yes	Yes

Technical reviewer and approver of the verification and certification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical reviewer (TR)	EI	Xue	. Denny	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Agustín	Applus+ Certification

Short CVs of the Team:

1. **Mr. Sukanta Das** has done M. SC in Electronics and Photonics and M. Tech in Energy technology from Tezpur Central University and Indian Institute of Technology in Bombay respectively. He is a Certified Lead Auditor for ISO 14001 EMS and ISO 9001 QMS (2008 and 2015) from International Registry for Certified Auditors (IRCA) and Certified Lean Management practitioner from Quality Council of India (QCI). He has more than 12 years of working experience at TUV Nord/Re-consult/CRA and Applus+ Certification under various categories of projects and programmes starting from Renewable to waste and supercritical GHG mitigation projects. He also worked in various Carbon foot-printing projects as well. He is empanelled with Applus+ Certification since 2015 and has been involved in more than 300 Validations and Verifications of PAs and PoAs as Lead Auditor, Technical Expert and Technical Reviewer for Renewable and non-Renewable as

well as Energy Demand and Waste Management projects and programmes, and has participated in several waste management projects as Team Leader. Moreover, he also have audit experience of Warehouse Physical and Safety audits, Vendor audits among others.

2. **Mr. Jitendra Mohan Singh**, has done Advanced MSc in Sustainable Energy Systems and Management from International Institute of Management, University of Flensburg, Germany and B.Tech. in Agricultural Engineering from Allahabad University, India. He has more than (18) years of working experience in different organisations like IARI, IIT Delhi, ICAR, IRADe, CAPART, SMEC and Perenia Carbon and M B Power (Madhya Pradesh) Ltd. in the area of Agriculture, Energy & Environment and Climate Change. He also worked on contract basis (adhoc) as a RIT expert in UNFCCC from 2010 to 2013. Currently, he is associated with True Quality Certifications Private Limited and is empanelled with APPLUC certification to carry out validation and verification related to GHG reductions projects
3. **Mr. Denny Xue**, has a Bachelor's Degree on Thermal Energy Engineering and Master's Degree on Environmental Engineering. He has more than 10 years of experience on CDM project development. Before he joined Applus+ LGAI, he has been worked for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development. He is working with Applus+ since 2011 carrying out Validation and verification for CDM/GS/VCS project under scope 1 and 13 as auditor, lead auditor, technical expert and technical reviewer.

APPENDIX 4: ABBREVIATIONS

Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CM	Combined Margin
CMS	Central Monitoring system
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reductions
FAR	Forward Action Request
GHG	Greenhouse gas(es)
GWP	Global Warming potential
RBI	Reserve Bank Of India
PP	Project Participant

APPENDIX 5: CALIBRATION DETAILS OF THE METERS

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.

Feeder Details	Capacity	Meter serial number	Accuracy class	Make	Date Of Calibration ⁵	Validity
Prisma Feeder 1 (Dewas)	10.5 MW	XD500621 Main	0.2s	Secure	08/12/2017	07/12/2022
		XD500620 Check				
Prisma Feeder 2 (Dewas)	12 MW	XD500619 Main	0.2s	Secure	08/12/2017	07/12/2022
		XD500622 Check				

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.

Feeder Details	Capacity	Meter serial number	Accuracy class	Make	Date Of Calibration ⁶	Validity
Tirupati Dhar Renewable Power Pvt. Ltd (Jaitpura)	13.5 MW	XD500605 Main	0.2s	Secure	19/03/2016	18/03/2021
		XD500606 Check			21/03/2016	20/03/2021
Dhar Wind Power Projects Pvt. Ltd. (Dashera Maidan)	7.5 MW	XD500602 Main	0.2s	Secure	21/03/2016	20/03/2021
		XD500603 Check			19/03/2016	18/03/2021

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.

⁵ As the calibration frequency of the meter is once in five year, the calibration reports are valid during the current monitoring period. Hence, error factor has not been applied.

⁶ As the calibration frequency of the meter is once in five year, the calibration reports are valid during the current monitoring period. Hence, error factor has not been applied.

Feeder Details	Meter Details	Meter serial number	Accuracy class	Make	Date Of Calibration ⁷	Validity
Kuchrod Site, Mandsour	RH-3 Main Meter	XB589231	0.2s	Secure	12/04/2016	11/04/2021
	RH-3 Check Meter	XC502290	0.2s	Secure	23/04/2016	22/04/2021
A F Jalpur, Mandsour	RH-4 Main Meter	XC502289	0.2s	Secure	12/04/2016	11/04/2021
	RH-4 Check Meter	XC502293	0.2s	Secure	23/04/2016	22/04/2021

10.5 MW and 9.0 MW Vejalpar Site, Gujarat

Meter Details	Line-1 Meters		Line-2 Meters	
	ABT Meter	Check Meter	ABT Meter	Check Meter
Meter Make	Secure	Secure	Secure	Secure
Meter Sl. No	GJ 1319 A	GJU 66431	GJ 1320 A	GJU 66432
Date of Calibration ⁸	31/03/2016	31/03/2016	31/03/2016	31/03/2016
Validity	30/03/2021	30/03/2021	30/03/2021	30/03/2021

⁷ As the calibration frequency of the meter is once in five year, the calibration reports are valid during the current monitoring period. Hence, error factor has not been applied.

⁸ As the calibration frequency of the meter is once in five year, the calibration reports are valid during the current monitoring period. Hence, error factor has not been applied.