WIND GROUPED PROJECT BY HERO FUTURE ENERGIES PRIVATE LIMITED (EKIESL-VCS-AUG-16-03)

Document Prepared By

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

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Prepared By	LGAI Technological Center, S.A. (Applus+ Certification)
Contact	Campus UAB – Ronda de la Font del Carme, s/n

	08193 Bellaterra – Barcelona (Spain) Tel: +34 93 567 20 08 Fax: +34 93 567 20 01 www.appluscertification.com agustin.calle@applus.com carla.debat@applus.com
Approved By	LGAI Technological Center S.A. (Applus+ Certification) B.U. Managing Director: Juan Sendín Caballero
Work Carried Out By	Dr. Atul Takarkhede - Lead Auditor / Technical Expert:

Summary:

Verification purpose: The main purpose of this project activity is to generate clean form of electricity through renewable energy sources. The project activity involves installation of 2 MW x 50 WTG wind power project in the state of Madhya Pradesh. The electricity generated from the WTGs will be sold to state electricity board. The project is registered with VCS with Project ID 1582[1]. Start date of the project activity is the 29-March-2016. The monitoring period for this VCS verification is chosen from 02-April-2017 to 31-July-2020 (including both days) and the project activity achieved 684,278 tCO_2e emission reductions during this monitoring period thereon displacing 699,886.99 MWh amount of electricity from the generation-mix of power plants connected to the NEWNE regional grid (now Indian Grid), which is mainly dominated by thermal/fossil fuel based power plant.

A risk based approach has been followed to perform this verification activity. In the course of verification, 06 Corrective Action request (CAR) and 00 Clarification Requests (CLs) were raised and successfully closed. No FAR was raised during this verification. 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 LGAI Technological Center S.A. (Applus+ Certification) with sufficient evidence to verify the fulfilment of the stated criteria of VCS.

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by "Hero Future Energies Private Limited" to perform the 2nd periodic verification of the "WIND GROUPED PROJECT BY HERO FUTURE ENERGIES PRIVATE LIMITED (EKIESL-VCS-AUG-16-03)" 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

[1]https://registry.verra.org/app/projectDetail/VCS/1582

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”
- the project’s monitoring plan is assessed against “ACM0002 - Version 17”
- 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 decision3/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
- CDM Project Standard for project activities, version 02
- CDM project cycle procedure for project activities, version 02
- 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).

The scope of the verification is the independent and objective review of the Monitoring report (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 project activities, Version 02, review against registered PD and Final Validation report, CDM Project Standard for project activities, version 02, CDM project cycle procedure for project activities, version 02 and VCS program guideline and standard version 4.0.

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 document verifications. The entire documents checked/WTGs verification conducted to arrive at positive verification conclusions.

CONTENTS

1 INTRODUCTION

1.1 Objective

LGAI Technological Center S.A. (Applus+ Certification) (Hereafter referred as Applus+ Certification) has been appointed by "Orange Renewable Power Private Limited" to perform the 6thperiodic verification of the "Bundled Wind Power Project in Rajasthan by Hero Future Energies Private Limited" 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
- CDM Project Standard for project activities, version 02
- CDM project cycle procedure for project activities, version 02
- 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) prepared as per the registered PD and registered approved methodology ACM0002 - Version 17. 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. The verification was based on the requirements in the CDM validation and

verification standard for project activities, Version 02, CDM Project Standard for project activities, version 02, CDM project cycle procedure for project activities, version 02 and VCS program guideline and standard version 4.0

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 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. Verification team conducted remote audit due to pandemic situation and equipments, technical details and metering/monitoring arrangement verified through photos/certificate shared by PP. The verification team has reviewed all the documents like commissioning certificates, technical specification, O&M practices, JMR, invoices, training records, grievance registers etc.

1.3 Level of Assurance

Applus+ Certification has planned and performed the verification by obtaining evidence and other information and explanations that assessment team considers necessary to give reasonable assurance that reported estimated GHG emission reductions are fairly stated. All documentary evidences were checked, a remote audit was conducted due to pandemic situation and technical details and metering/monitoring arrangement verified through photos/certificate shared by PP to arrive at a verification conclusion by the assessment team.

In our opinion, the estimated GHG emissions reductions were calculated correctly on the basis of the approved baseline and monitoring methodology “ACM0002 - Version 17” and the VCS standard.

1.4 Summary Description of the Project

The project activity involves installation and operation of a 50 Wind Turbine Generators (WTG s) of total generating capacity of 100 MW, located Dhar district of Madhya Pradesh, India. This is a grouped project activity with Hero Future Energies Private Limited as the project proponent. In order to implement wind power projects, Hero Future Energies Private Limited acting as a parent company formed different SPV (Special Purpose Vehicles) and projects are developed by name of SPVs.

Following are the SPV's in this project:

SPV Name	Capacity (MW)	Village	District	State	Date of Commissioning
Clean Wind Power (Ratlam) Private Limited	100	Shergadh, Gandhwada, Borjhadi, Indrawal, Panda, Khiedi, Kisanpura,	Dhar	Madhya Pradesh	29-March-2016

The project activity utilizes 50 Gamesa made G97 WTGs each with capacity of 2.0 MW.

There was no activity at the site prior to implementation of the project activity (Greenfield). The electricity generated by the project is exported to the Indian electricity grid. The project activity will therefore displace an equivalent amount of electricity which would have otherwise been generated by fossil fuel dominant electricity grid. Since wind power is Greenhouse Gas (GHG) emissions free, the power generated will prevent the anthropogenic gas emissions generated by fossil fuel based thermal power stations comprising coal, diesel, furnace oil and gas.

All the WTGs in the project activity were commissioned on 29-March-2016 and have been operational since then.

Assessment team confirms following during the verification remote audit:

1. Start date of the project activity is 29-March-2016 as mentioned in the registered VCS PD.

2. An undertaking letter dated 06-October-2020 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. Assessment team also checked that the projects are not registered under the REC mechanism of India and the same can be cross-checked at *https://recregistryindia.nic.in*. PP has given a written declaration that the credit claimed

under VCS for the current monitoring period is not claimed under any other GHG mechanism.

3. Assessment team confirms that this is the 2nd monitoring under VCS and covers the activity from 02-April-2017 to 31-July-2020 (inclusive of both dates). The Crediting Period of the project activity is from 29-March-2016 to 28-March-2026 which will be renewed twice.

   Start date of crediting period for VCS verification: 29-March-2016 (Date of commissioning of plant)

   The GHG credits from 02-April-2017 to 31-July-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	Hero Future Energies Private Limited
Contact person	Mr. Vijay Anand
Title	Assistant General Manager - HSE
Address	Unit No 89/1101A, Hemkunt Chambers, Nehru Place, Delhi, New Delhi111019
Telephone	+91 11 4335 5683
Email	vijay.anand@herofutureenergies.com

5. Assessment team also checked the details of other entity and found correct. The details are as below:

Organization name	EKI Energy Services Limited
Role in the Project	Project Consultant
Contact person	Mr. Souvik Mitra
Title	Project Manager
Address	Office No 201, Plot No 48, Scheme 78, Vijay Nagar Part- II, Indore 452010, India
Telephone	+91-9109120945
Email	souvik@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 (684,278tCO_2e) is 19.8 % higher than the estimated emission

reduction[2] (571,133 tCO_2e). This is due to variations in wind flow pattern, grid availability and other parameters and results higher PLF. From the generation data it was observed that the PLF achieved during this monitoring period is 23.96%. As per the validation report, project becomes non additional if it achieves a PLF of 65.30%. further PP have also submitted revised IRR sheet with actual PLF achieved during this monitoring period. Thus it is concluded that the project activity is still additional though 19.8% higher emission reductions achieved.

2 VERIFICATIONPROCESS

2.1 Method and Criteria

Verification Process: The project assessment is based on the "CDM validation and verification standard for project activities, Version 02 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 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.

[2]Calculated for 1217 monitoring days involved.

Appointment of the assessment team

According to the sectoral scope / technical area and experience in the sectoral or natio nal business environment, Applus+Certificationhas composed a project assessment te am in accordance with the appointment rules in the internal Quality Management Syste m of Applus+ Certification.

The composition of audit team shall be approved by the Applus+Certificationensuring th at 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 s hall be covered by the assessment team.

Name	Role	SS Coverage	TA Coverage	Financial aspect	Host country experience
Dr. Atul Takarkhede	LA/TE	YES	YES	NA	YES
Mr. Simon Shen	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

A remote audit is conducted by Applus+ Certification. Audit team performed interviews, via video/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.	Kumar Kumavat	Naresh	Hero Future Energies Private Limited	05-June-2020 (Remote Audit)	Project Implementation, JMR & invoicing procedure, calibration, grievance mechanism	Dr. Atul Takarkhede
2.	Singh	Nikita	Hero Future Energies Private Limited		Management practices, data storage, QA/QC	
3.	Sharma	Barun	EKI Energy Services Limited		GHG calculations, MR and ER preparation, Data collection, data storage, QA/QC	
4.	Mitra	Souvik	EKI Energy		GHG calculations, MR and ER preparation,	

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
			Services Limited		Data collection, data storage, QA/QC	
5.	Mishra	Kumud	Hero Future Energies Private Limited		Management practices	

2.4 Site Inspections

Duration of on-site inspection: NA				
No.	Activity performed on-site	Site location	Date	Team member
1.	NA	NA	NA	NA

No physical verification was conducted by the DOE for this verification due to high threat of COVID-19 in entire state of India. Government of India has order nationwide lockdown from 25-March-2020 to 14-April-2020[3][4]. Further extended to 03-May-2020[5] and again extended up 17-May-2020[6]. Lockdown is further extended till 30-June-2020 with some relaxations[7] and then unlock phases started. Furthermore, the VCS program does not explicitly mandate site visits as part of the validation and verification process during such unprecedented circumstances, only that VVBs must achieve a reasonable level of assurance on all validations and verifications (per section 4.1.2 of the VCS Standard, v4.0).

The DOE has taken alternative measures to reach reasonable level of assurance and conducted remote audit through video call & telephonic interview on 02-October-2020 (refer section 2.3) with the representative of PP and consultants. . Further, during interview with PPs, the implementation of project activity and monitoring procedure and systems in place was confirmed. Technical specifications of the plant verified through the photographs/name plates of WTGs shared by PPs and the same was cross checked with the previous verification report.

After teleconference with PP representatives and verifying the photographs of WTGs and calibration certificates of meters, verification team confirmed that monitoring procedure is followed as per registered VCS PD and there is no change in technical specifications of plants since installation and all the meters are calibrated in accordance with VCS PD and host country metering guidelines.

[3] https://www.mha.gov.in/sites/default/files/MHAorder%20copy.pdf
[4] https://en.wikipedia.org/wiki/COVID-19_pandemic_in_India
[5] https://www.mha.gov.in/sites/default/files/MHA%20D0%20letter%20dt.14.4.2020%20to%20Chief%20Secretaries%20and%20Administrators%20for%20strict%20implementation%20of%20Lockdown%20Order%20during%20extended%20period.pdf
[6] https://www.mha.gov.in/sites/default/files/MHA%20Order%20Dt.%201.5.2020%20to%20extend%20Lockdown%20period%20for%202%20weeks%20w.e.f.%204.5.2020%20with%20new%20guidelines.pdf
[7] https://www.mha.gov.in/sites/default/files/MHAOrderDt_30052020.pdf

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	01	00
Description of project activity	00	01	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	01	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 the resolution is presented in Appendix 2 of this report.

2.5.1 Forward Action Requests

This is 2nd periodic verification of the project activity and no FAR was raised from validation or previous verification.

2.6 Eligibility for Validation Activities

This section is not applicable for present verification.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

This section is not applicable for present verification

3.2 Methodology Deviations

This section is not applicable for present verification.

3.3 Project Description Deviations

Not Applicable

3.4 Grouped Project

No new project activity instance has been included in the grouped project activity during the current monitoring period and this is in line with the VCS standard, version 04.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the remote audit interviews with PP & plant in-charge and subsequent document verification; commissioning certificates, PPA, JMR and invoices, it was concluded that the project is implemented as per the requirement of the registered VCD PD and approved monitoring plan. During the current monitoring period, it was observed that no unforeseen incident/event evolved which can impact the operation of the project activity which was verified from breakdown records. The project undergone continuous operation

and only scheduled maintenance is observed as per the manufactures specification which is acceptable to the assessment team and evident from JMRs.

The project activity is a 100 MW (wind power project consisting of 50 Wind Turbine Generators (WTGs). The project is promoted by Hero Future Energies Private Limited. The purpose of the project activity is to generate clean electricity with utilization of wind energy.

Geo-coordinates of 100 MW Wind power project at Dhar are as below:

SPV	WTG Id.	Geo-coordinates	
		Latitude (N)	Longitude (E)
Clean Wind Power (Ratlam) Private Limited	BD-01	22° 51' 43.9308"	75° 07' 56.6296"
	BD-02	22° 51' 38.6892"	75° 08' 06.1345"
	BD-03	22° 51' 30.2616"	75° 08' 12.1269"
	BD-04	22° 51' 24.8472"	75° 08' 27.7371"
	BD-05	22° 51' 16.4232"	75° 08' 29.8690"
	BD-06	22° 51' 07.9128"	75° 08' 17.1575"
	BD-07	22° 50' 59.1576"	75° 08' 27.2545"
	BD-08	22° 50' 51.9504"	75° 08' 13.1062"
	BD-09	22° 50' 47.4756"	75° 08' 34.3303"
	BD-10	22° 50' 42.0324"	75° 08' 48.1143"
	BD-11	22° 50' 27.9456"	75° 09' 26.5198"
	BD-12	22° 50' 21.3684"	75° 09' 34.0208"
	BD-13	22° 50' 11.9544"	75° 09' 16.2562"
	BD-14	22° 50' 11.9544"	75° 09' 16.2562"
	BD-15	22° 50' 04.2828"	75° 09' 47.9649"
	BD-16	22° 49' 47.7840"	75° 09' 25.9122"
	BD-17	22° 49' 37.4448"	75° 09' 24.2514"
	BD-18	22° 49' 19.2036"	75° 09' 20.1610"
	BD-19	22° 49' 04.2456"	75° 09' 16.2149"
	BD-20	22° 49' 26.7780"	75° 08' 10.3897"
	BD-21	22° 49' 17.8608"	75° 08' 18.5901"
	BD-22	22° 49' 17.8644"	75° 08' 17.2920"
	BD-23	22° 48' 51.5052"	75° 09' 41.8092"
	BD-24	22° 48' 04.4676"	75° 09' 20.9881"
	BD-25	22° 48' 13.3848"	75° 09' 15.0701"
	BD-26	22° 48' 20.3796"	75° 09' 47.1044"
	BD-27	22° 47' 49.6896"	75° 10' 37.9280"
	BD-28	22° 48' 26.2908"	75° 10' 23.9439"
	BD-29	22° 48' 15.7212"	75° 10' 23.4395"
	BD-30	22° 48' 07.2540"	75° 10' 03.5400"
	BD-31	22° 47' 57.8508"	75° 10' 07.5974"
	BD-32	22° 47' 37.5720"	75° 10' 26.4428"
	BD-33	22° 47' 34.2780"	75° 10' 03.7803"
	BD-34	22° 47' 23.8380"	75° 09' 32.0955"
	BD-35	22° 47' 14.7552"	75° 09' 42.5720"
	BD-36	22° 50' 38.1444"	75° 09' 40.2509"
	BD-37	22° 46' 49.4976"	75° 09' 31.8804"
	BD-38	22° 46' 49.4832"	75° 09' 45.2778"
	BD-39	22° 46' 39.1044"	75° 09' 50.3157"
	BD-40	22° 46' 27.1128"	75° 09' 41.7443"
	BD-41	22° 46' 20.1360"	75° 09' 58.1837"

SPV	WTG Id.	Geo-coordinates	
		Latitude (N)	Longitude (E)
	BD-42	22° 46' 16.2552"	75° 09' 37.3478"
	BD-43	22° 45' 47.7108"	75° 09' 59.0913"
	BD-44	22° 45' 37.6632"	75° 09' 25.9061"
	BD-45	22° 45' 37.6632"	75° 09' 25.9061"
	BD-46	22° 45' 37.6632"	75° 09' 25.9061"
	BD-47	22° 45' 20.2968"	75° 09' 59.0931"
	BD-48	22° 45' 09.9360"	75° 08' 37.5553"
	BD-49	22° 45' 00.0180"	75° 08' 36.8436"
	BD-50	22° 45' 03.7332"	75° 09' 36.7372"

Verification team confirmed from the registered PD and from previous verification reports that the location of the project activity including the coordinates is same as mentioned in the registered VCS PD.

The project boundary includes the electricity generation equipment at the project site, sub-station and the NEWNE grid (now Indian grid).

Assessment team also checked the Technical details of the WTGs installed onsite from documents submitted by PP and previous verification reports. The same is cross checked from the photographs of the number plates, module capacity etc. submitted by PP & also cross checked from the technical details from Manufacturer.

The brief technical details of the WTG are as follows:

Technical details of Gamesa G97 WTG

Rated power	2.0 MW
Cut-out speed	25 m/s
Cut-in speed	3 m/s
Rotor diameter	97m
Swept area	7390m^2
Control	Variable pitch and speed
Generator type	Doubly-fed generator

The WTGs are commissioned on 29-March-2016. Assessment team checked the commissioning certificate and confirmed that the dates of Commission for the plants are correct.

The assessment team confirmed that there is no proposed or actual change to the project design during this monitoring period. The project design as mentioned in the registered PD is implemented and thus the same is acceptable to the assessment team. All required monitoring equipment's and procedures as mentioned in the registered PD are available and implemented in an appropriate manner.

The organisational role and responsibility as mentioned in the registered PD is followed onsite. All the emergency preparedness as mentioned in the registered PD is followed onsite and no discrepancies were found regarding the same. All the monitoring equipment was calibrated once in three year and thus complied with registered monitoring plan.

The project activity fulfilled the contribution of sustainable development to the host country by implementing environmental friendly technology and creating employment opportunities to the local community. Same is confirmed during remote audit interviews with PP.

The ex-ante fixed grid emission factor of 0.9777 tCO_2/MWh has been used for the baseline emission calculation which is line with the registered VCS PD.

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 19.8% Higher than the estimated emission reduction which is due to variations in wind flow pattern, grid availability and other parameters which are not in the control of PP. From the generation data it was observed that the PLF achieved during this monitoring period is 23.96%. As per the validation report, project becomes non additional if it achieves a PLF of 65.30%. further PP have also submitted revised IRR sheet with actual PLF achieved during this monitoring period. Thus it is concluded that the project activity is still additional though 19.8% higher emission reductions achieved.

All required equipments and procedures are available and implemented in an appropriate manner.

It was observed that the monitoring plan was implemented as per the requirement of the registered PD, FVR and approved methodology ACM0002 - Version 17. The organisational role and responsibility as mentioned in the registered PD is followed onsite. All the monitoring equipment was calibrated as per the specified interval in the registered PD. All the emergency preparedness as mentioned in the registered PD is followed onsite and no discrepancies were found regarding the same.

Further, the project activity has not participated under any other GHG program, apart from Verified Carbon Standard and REC. PP will not claim benefits of carbon emission reduction credits achieved through this project activity under any other GHG programme for the crediting period claimed under VCS. Moreover, the project has not generated any other form of environmental credit and a declaration for the same has been submitted to the assessment team and the same is acceptable. The project is not registered under the REC mechanism of India and the same is cross-checked at https://recregistryindia.nic.in.

A declaration certificate for no other participation in any other GHG Programs for the monitoring period have been submitted for the assessment

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

Social well-being**:** The project activity instances under grouped project activity have resulted in creating job opportunities for the local population on temporary and permanent basis. Manpower is required both during erection and operation of the renewable energy projects. This would result in the improvement in living standards of the local community. The installation of the renewable energy projects also led to development of basic infrastructure like roads, communication with the nearby cities etc. which also improved in living standards of the local population.

Economic well-being: The project activity instances under grouped project activity have created direct and indirect job opportunities to the local community during installation and operation of the renewable energy projects. The investment for the project activity instances under grouped project activity has led to the improvement in the economic activity in the local area

Technological well-being: The successful operation of project activity has led to promotion of wind power generation and would encourage other entrepreneurs to participate in similar projects

Environmental well-being:

The project activity instances under grouped project activity utilizes renewable energy for generating electricity which otherwise would have been generated through alternate fuel (most likely - fossil fuel) based power plants, contributing to reduction in specific emissions (emissions of pollutant/unit of energy generated) including GHG emissions. As renewable energy projects produce no end products in the form of solid waste (ash etc.), they address the problem of solid waste disposal encountered by most other sources of power. Being a renewable resource, to generate electricity contributes to resource conservation. Thus the project causes no negative impact on the surrounding environment.

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 documents review of VCS PD and grievance register etc. The project is renewable energy project and thus no negative impact observed due to project activity.

4.2.2 Local Stakeholder Consultation

Local stakeholder consultation has been conducted at the time of project registration. For on-going stakeholders communication, PP have maintained feedback/complaint register at the site office. Assessment team checked the copies of grievance registers submitted by PP which are available at sites and found that local stakeholders can anytime lodge their grievances if any in the register over the operational life time of the

project. During interviews with PP, it was confirmed that Site Manager/In-charge is responsible to address any grievances received from stakeholders. During current monitoring period no grievance was received. Thus, assessment team is of the opinion that the on-going 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 04 and 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 Parameter:** **$EF_{grid,CM,y}$**= Parameter is fixed ex-ante for the entire crediting period and as per the validated VCS PD same is fixed 0.9777 tCO_2/MWh. Verification team found same was used in the ER calculations. $EF_{grid,CM,y,}$ $EF_{grid,BM,y}$, $EF_{grid,OM,y}$ were mentioned as ex-ante fixed parameter. Assessment team checked the values, source of data, choice of data, purpose of the data mentioned in the MR from the registered VCS PD and confirms that the similar approach was considered for the current monitoring period also. **Baseline Emissions:** The baseline Emissions for a given year is calculated by multiplying the energy baseline with the grid emission factor. The grid in this case would be the 'Indian Grid' Formula Used:- BE_y = **EG** $_{facility,y}$ x $EF_{grid,CM,y}$ Where BE_y= Baseline Emissions (tCO_2/year) **EG** $_{facility,y}$= Quantity of net electricity supplied to the grid as a result of the implementation of the CDM project activity in year y (MWh) $EF_{grid,CM,y}$= CO2 emission factor of the grid in year y (tCO_2/MWh)

	Ex-post parameter: As per the registered monitoring plan and requirement of the registered methodology following parameters needs to be monitored: $EG_{facility,y}$: Quantity of net electricity supplied (MWh) to the grid as a result of the implementation of the project activity instances in year y [8] As per the registered PD the value of net electricity generation supplied to the grid as per Monthly electricity credit report or Joint Meter Reading Report forms the basis for calculation of the emission reductions; which can be cross checked from the invoice raised to DISCOM. The JMR includes, monthly recording of electricity export & import values. The source of data is therefore in accordance to registered VCS PD and thus acceptable to the assessment team. Net electricity supplied to grid will be calculated as the difference of the measured values of "export" and "import" of electricity through the dedicated SEB energy meter (electronic tri-vector bidirectional main meter & check meter which measures both export & import concurrently) installed at the delivery point (i.e. the connected substation). $EF_{grid,CM,y} = EG_{facility,y} = EG_{Export} - EG_{Import}$ Monthly meter readings are taken from the main and check meter installed at the substation and certified by the representatives of SEB Officials and the representatives of the project proponent during the billing cycle for each month of the monitoring period. However, for the month of April 2017 where billing cycle not matching with monitoring period cycle, apportioning of the export & import values have been carried out. The apportioning was carried out by subtracting Daily Generation data (export & import) of 01-April-2017 from JMR values of 01-April-2017 -30-April-2017. Same approach was also used for the month of December 2018 & January 2019 to match vintage breakup. The approach found correct and conservative and thus accepted by verification team. The Net electricity generation from the Wind plant is thus correct. All the parameters are monitored and recorded as per the monitoring plan in the registered PD. The verification team has crosschecked the revised emission reduction sheet and monitoring report data with the JMR sheet and invoice bills and found all the values are matching. Apportioning methods are used for month of April 2017. Apportioning is carried out by subtracting DGR data for the period beyond monitoring period. Same found appropriate and correct.

[8] If the project activity is the installation of a Greenfield power plant, then: $EG_{PJ,y} = EG_{facility,y}$

The values at substation along with individual WTG are submitted and checked by the DISCOM officials and subsequently an invoice is raised by each PP to DISCOM.

The assessment team has checked JMR sheets, breakup sheets, revised MR and ER sheet and found acceptable.

Moreover, for Wind turbine (Green field renewable project) as per the registered PD and approved methodology ACM0002 Version 17, project emission is zero for the current monitoring period. The calculation approach as described above is used for baseline emission calculation only. As project emission is zero thus Emission reduction for current monitoring period = baseline emission for the current monitoring period.

The project activity involves in harnessing wind power. So the emissions from the project are zero.

As per the applied methodology, emission reductions are calculated as follows:

ERy = BEy – PEy

Where:

ERy Emission reductions in year y (tCO2e/yr)

BEy Baseline emissions in year y (tCO2e/yr)

PEy Project emissions in year y (tCO2e/yr)=0

Hence, ERy= BEy

BE_y = *699,886.99* x *0.9777*

= *684,278* tCO_2e (round down values)

Year-wise ER calculations is as below:

Year	Net Electricity Export(MWh)	Baseline Emission Factor (tCO_2/MWh)	Baseline Emissions (tCO_2)
02-April-2017 to 31-December-2017	160,874.53	0.9777	157,287
01-January-2018 to 31-December-2018	204,357.26	0.9777	199,800
01-January-2019 to 31-December-2019	210,666.80	0.9777	205,968
01-January-2020 to 31-July-2020	123,988.40	0.9777	121,223
Total	699,886.99		684,278

	PE_y = As per ACM0002 - Version 17, all renewable energy power generation project activities, emissions due to the use of fossil fuels for the backup generator can be neglected. As the project activity involved wind project emissions (PE_y) are taken as zero. Leakage: As per ACM0002 - Version 17, Leakage emissions are not considered for the project activity.

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. The description of the CAR and its closure is described below in Appendix 2 of this report.
Conclusion	The metering arrangement is tri-vector bi-directional energy meters of Secure Make; accuracy class 0.2s (main and check) at the State Electricity Board (SEB) substation. 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. No delayed calibrations were observed in the project activity for this monitoring period. All the meters are of same accuracy class i.e. 0.2s as per the requirement of the registered PD. On-site photographs and interview during remote audit with O&M personnel also confirms the same. During commissioning of the WTGs monitoring meters of accuracy class i.e. 0.2s were installed. The meters are monitored continuously & cumulative readings are taken at the end of the month by joint meter reading procedure. These are sealed by State Utilities to avoid malfunctioning with meter readings. Meter is calibrated once in 5 years by the meter testing division of the state utility in the presence of O&M Contractor / investor's representatives and State Utilities officials to ensure the working of meter within permissible limits. The calculation of net electricity supplied to grid is under purview of state electricity board and PP does not have control on it. Calibration details of the monitoring meters checked with calibration certificates submitted by PP and found that calibration frequency of 5 years is complied. Thus, no delayed calibration is observed and thus the same is found appropriate. The break down log is checked and there is no major breakdown during the monitoring period. No unforced error observed.

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 Hero Future Energies Private Limited to perform the 2nd periodical verification of the "Wind Grouped project by Hero Future Energies Private Limited (EKIESL-VCS-Aug-16-03)".

The management of Hero Future Energies Private Limited is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions on the basis set out within the project's Monitoring Plan in the registered VCS PD and the applied methodology ACM0002 - Version 17.

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 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: 02-April-2017 to 31-July-2020 (inclusive of both days)

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

Year	Baseline emissions or removals (tCO_2e)[9]	Project emissions or removals (tCO_2e)	Leakage emissions (tCO_2e)	Net GHG emission reductions or removals (tCO_2e)
02-April-2017 to 31-December-2017	157,287	0	0	157,287
01-January-2018 to 31-December-2018	199,800	0	0	199,800
01-January-2019 to 31-December-2019	205,968	0	0	205,968
01-January-2020 to 31-July-2020	121,223	0	0	121,223
Total	**684,278**	0	0	**684,278**

[9]Rounddown values

APPENDIX 1: DOCUMENTS REVIEWED OR REFERENCED (VERIFICATION)

No.	Author	Title	References to the document	Provider
1.	NA	Commissioning certificates of the WTGs	Letter dated 29-march-2016	PP
2.	NA	Contract of the project participant with the DOE	Contract document signed between PP and DOE	PP
3.	NA	The operational lifetime of the project activity from the manufacturer = (Technical specifications)	Manufacturer technical specifications	PP
4.	NA	Registered PD https://registry.verra.org/app/projectDetail/VCS/1582	NA	PP
5.	NA	Calibration Certificates of energy meters	Test certificates for testing on 13-March-2016	PP
6.	NA	MR version 01 MR version 02	07-September-2020 17-October-2020	PP
7.	NA	Emission reduction sheet version 01 Emission reduction sheet version 02	07-September-2020 17-October-2020	PP
8.	NA	O & M Agreement	-	PP
9.	NA	Power Purchase Agreement (PPA)	-	PP
10.	NA	Tools/ guidelines used in the project activity • Glossary of CDM terms version 07 • VCS standard Version 4.0 • VCS Program Guide 4.0 • VCS verification report template version 4.0	UNFCCC CDM/VCS web site	UNFCCC
11.	NA	Monthly statement- JMR & invoices for the complete monitoring period	-	PP
12.	NA	Declaration regarding no participation in other GHG program for the concerned monitoring period	06-October-2020	PP
13.	NA	Breakdown details for the monitoring period	-	PP
14.	NA	Employment records for plant persons	-	PP
15.	NA	Grievance Register maintained at site	-	PP
16.		CDM validation and verification standard for project activities,	-	UNFCCC

No.	Author	Title	References to the document	Provider
		Version 02.0		
17.		Verification Reports for previous VCS verification	CCIPL 472/VCS/VAL/VER/GW HFG/20160906 dated 23-May-2017 by Carbon Check (India) Private Ltd.	PP
18.		Breakdown details of the power plant	-	PP

APPENDIX 2: CORRECTIVE ACTION REQUESTS, CLARIFICATION REQUESTS AND FORWARD ACTION REQUESTS (CAR/CL/FAR)

Table 1. Remaining FAR from validation and/or previous verification

FAR ID	XX	Section no.	E.2	Date : DD/MM/YYYY
Description of FAR				
There is no FAR from the validation/previous verification of the project activity				
Project participant response				**Date :** DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				**Date:** DD/MM/YYYY
NA				

Table 2. CL from this verification

CL ID	XX	Section no.	NA	Date : DD-Month-YYYY
Description of CL				
NA				
Project participant response				**Date :** DD-Month-YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				**Date:** DD-Month-YYYY
NA				

Table 3. CAR from this verification

CAR ID	01	Section no.	4.1	Date: 06-October-2020
Description of CAR				
During review of monitoring report following inconsistencies observed: 1. Title of the project activity not inline with approved Joint VCS PD & MR/VERRA project webpage on first page of the MR. Corrections sought. 2. Monitoring report Section 1.1 is not completed with the guidelines to complete VCS MR template. Correction sought. 3. PP requested to submit copies of technical specifications of WTGs, commissioning certificates, PPA, O&M agreement, training records of the personnels involved in O&M & monitoring of the project activity. 4. Complete details of PP are missing in section 1.3 of the MR. Correction sought. 5. Section 1.7 of MR: Geo-coordinates of each WTG missing inline with approved Joint VCS PD & MR. Correction sought. 6. Section 1.11 of MR lacking actual sustainable development contribution though project activity already implemented. Correction sought. 1. Section 3.1 is not inline with guidelines to complete MR. Corrections sought..				

Project participant response	Date : 14- October -2020

1. Title of the Project activity has been corrected on first page of the MR in line with approved Joint VCS PD & MR/VERRA project webpage
2. Section 1.1 of MR has been revised in accordance with VCS MR template in VCS version 4
3. Copies of technical specifications of WTGs, commissioning certificates, PPA, O&M Agreement, training records of the personnels involved in O&M & monitoring of the project activity have been provided
4. Section 1.3 of MR has been revised with inclusion of complete details of PP
5. Section 1.7 of MR has been revised with inclusion of geo-coordinates of each WTG
6. Section 1.11 of MR has been revised with inclusion of actual sustainable development contribution through the project activity
7. Section 3.1 of MR has been revised in accordance with VCS MR template in VCS versión 4

Documentation provided by project participant

1. Revised MR (v02)
2. Technical specifications of WTGs (Gamesa G97)
3. Commissioning Certificates of WTGs
4. PPA
5. O & M agreement
6. Training Records

DOE assessment	Date: 19-October -2020

PP has amended the title of the project activity on front page of MR v.02 dated 17/10/2020. Same is also inline with the approved Joint VCS PD & MR/VERRA project webpage. PP has completed the section 1.1 of MR v.02 dated 17/10/2020, as per the guidelines to complete VCS MR template. PP has submitted the following documents with MR v.02 dated 17/10/2020:-

1. Technical specifications of WTGs (Gamesa G97)
2. Commissioning Certificates of WTGs , dated 29/03/2016
3. PPA between M/s Clean Wind Power (Ratlam) Pvt Ltd and MP Power Management Co. Ltd. Dated 20/11/2015 (94 MW) and 05/05/2016 (6 MW)
4. Project Proposal For 100 MW Wind Power Project.
5. Training Records of O&M Staff.
6. PP has mentioned complete details of PP in section 1.3 of revised MR v.02 dated 17/10/2020.
7. PP has mentioned the Geo-coordinates of each WTG missing inline with approved Joint VCS PD & MR, under revised MR v.02 dated 17/10/2020.
8. PP has reframed the language of section 1.11 of revised MR v.02, as the project is implemented and contributing toward sustainable development.
9. PP has amended the section 3.1 of revised MR v.02 dated 17/10/2020, inline with the VCS MR template in VCS version 4 and submitted evidence for the same.

Hence. **CAR is Closed.**

CAR ID	02	Section no.	4.1	Date: 06-October-2020
Description of CAR				

As per section 1.9& 1.10 of the VCS MR, it was stated that the project is not registered under other GHG program. Also, PP needs to justify whether REC benefits is taken for the present Monitoring period covered under VCS. Corrective action is sought for the same. PP is requested to submit an undertaking for no any double accounting for current monitoring period and for project activity is participated in other GHG program other than VCS.
Project participant response **Date:** 14- October -2020
No REC benefits have been/would be taken for this Project activity for the current monitoring period and it has been mentioned in section 1.10 of MR. PP has also provided undertaking that it would not avail REC benefits or any environmental credits and no GHG credits in any GHG program other than that in VERRA in the current monitoring period
Documentation provided by project participant
Revised MR (v02) 2. Undertaking from PP it would not avail REC benefits or any environmental credits and no GHG credits in any GHG program other than that in VERRA in the current monitoring period to avoid double accounting
DOE assessment **Date:** 19 –October-2020
PP has submitted undertaking in effect that PP will not claim emission reductions for the same period. Also from the REC registry it was found that project is not registered with REC mechanism of India. **CAR thus closed.**

CAR ID	03	**Section no.**	4.2.2	**Date:** 06-October-2020
Description of CAR				
Details of ongoing stakeholders consultation mechanism is provided in section 2.2 of the MR inline with VCS guidelines to complete MR. However, PP also requested to submit records of ongoing local stakeholder consultation including grievance register etc.				
Project participant response				**Date:** 14- October -2020
Grievance register for on going local stakeholder consultation has been provided				
Documentation provided by project participant				
Grievance register				
DOE assessment				**Date:** 19 –October-2020
PP has provided the grievance register for ongoing local stakeholder consultation and information found inline with the document submitted and interviews with PP. **CAR thus closed**				

Accuracy of GHG Emission Reduction and Removal Calculations

CAR ID	04	**Section no.**	4.4	**Date:** 06-October-2020
Description of CAR				
PP requested to submit copies all JMRs and invoices for the complete monitoring period. ER sheet submitted however, ER reserved for submission of supporting documents. Section 5.4 is not completed inline with the approved joint VCS PD & MR. Corrections sought.				
Project participant response				**Date:** 14- October -2020
1. All JMRs and invoices for the complete monitoring period have been provided 2. Section 5.4 of MR has been revised in line with the approved joint VCS PD & MR				
Documentation provided by project participant				
1. JMRs and invoices 2. Revised MR (v02)				
DOE assessment				**Date:** 19- October -2020
PP has submitted all JMRs &invoices for the current monitoring period and the values of net electricity supplied is found consistent. Hence accepted. PP also amended the Section 5.4 as per approved joint VCS PD & MR. **CAR is Closed.**				

CAR ID	05	Section no.	4.5	Date: 06-October-2020
Description of CAR				
PP requested to justify impact of higher generation & 23.8% higher emission reductions achieved than estimated on the additionality of the project activity.				
Project participant response				Date: 14- October -2020
Though during the current monitoring there has been higher generation, and the actual ER is 19.8% higher than the estimated ER, it does not impact additionality – as per the approved joint PD & MR, additionality breaches if the PLF exceeds by 65.30% but in this monitoring period, achieved PLF is 23.96% that is 19.8% higher than assumed PLF (20%), hence the higher value of actual ER does not have any impact on project additionality. The explanation has been given in section 5.4 of MR. It has also been demonstrated by entering the value of achieved PLF in IRR calculation sheet.				
Documentation provided by project participant				
1. Revised MR (v02) 2. IRR calculation worksheet with achieved value of PLF				
DOE assessment				Date: 26-October-2020
From the generation data it was observed that the PLF achieved during this monitoring period is 23.96%. As per the validation report, project becomes non additional if it achieves a PLF of 85.30%. further PP have also submitted revised IRR sheet with actual PLF achieved during this monitoring period. Thus it is concluded that the project activity is still additional though 19.8% higher emission reductions achieved. CAR thus closed.				

Quality of Evidence to Determine GHG Emission Reductions and Removals

CAR ID	06	Section no.	4.5	Date: 06-October-2020
Description of CAR				
PP requested to submit copies of the calibration certificates covering complete monitoring period.				
Project participant response				Date: 14-October-2020
Meter calibration certificates have been provided				
Documentation provided by project participant				
Calibration Certificate				
DOE assessment				Date: 19-October-2020
PP has submitted copies of calibration certificate for current monitoring period and found consistent hence accepted **CAR is Closed.**				

Table 4. FAR from this verification

FAR ID	XX	Section No.		Date : DD-Month-YYYY
Description of FAR				
There is no FAR from this verification				
Project participant response				Date : DD-Month-YYYY
NA				
Documentation provided by project participant				
NA				
DOE assessment				Date: DD-Month-YYYY
NA				

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	TAKARKHEDE	ATUL	TQC-Outsourced entity	Yes	No	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) / Technical Expert (TE)	EI	Shen	Simon	Applus+ Certification
2.	Approver	IR	Sendin	Juan	Applus+ Certification B.U. Managing Director

Short CVs of the Team:

1. Dr. Atul Takarkhede counts with 9 years of experience in field of Environmental Auditing, consulting and accreditation. He is an Expert in ISO 9001-14001, CO2/GHG Reporting, Carbon Foot Print, Energy, Water and Waste Management Reporting for organizations environmental performance. His professional portfolio is mainly related with carrying out EIA, conducting QA/QC of EIA Reports; Conducting Environmental/water Audits; NABET requirements appliance. Furthermore, he counts with solid experience on CDM-VCS-GS consultancy and auditing. He has Ph.D. (Environmental Science) from Institute of Science,

RTM Nagpur University, Nagpur, and he has already published different technical reports related to environmental science.

2. Mr. Simon Shen (Master Degree in Thermal Energy Engineering, Bachelor Degree in Environmental Engineering) is a Lead Auditor appointed by Applus+ LGAI for the GHG project assessment. He is based in Shanghai. He has several years of work experience in environmental protection field. Before he joined Applus+ LGAI, he had been worked for TÜV SÜD as a GHG Validator/Assessment team and ISO 9001/14001 Lead Auditor for 3.5 years.

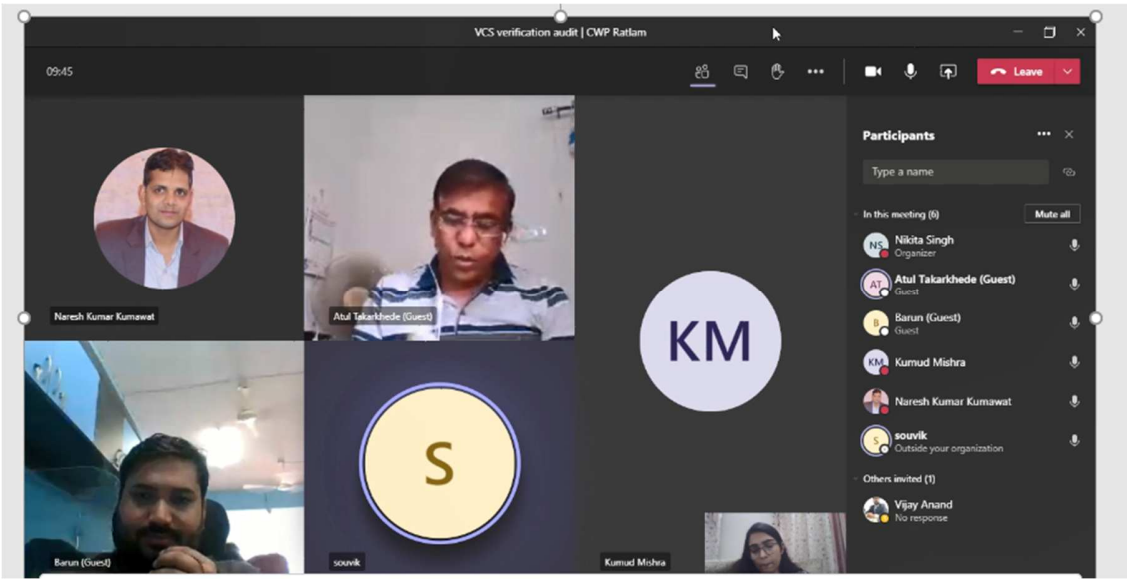
APPENDIX 4: ABBREVIATIONS

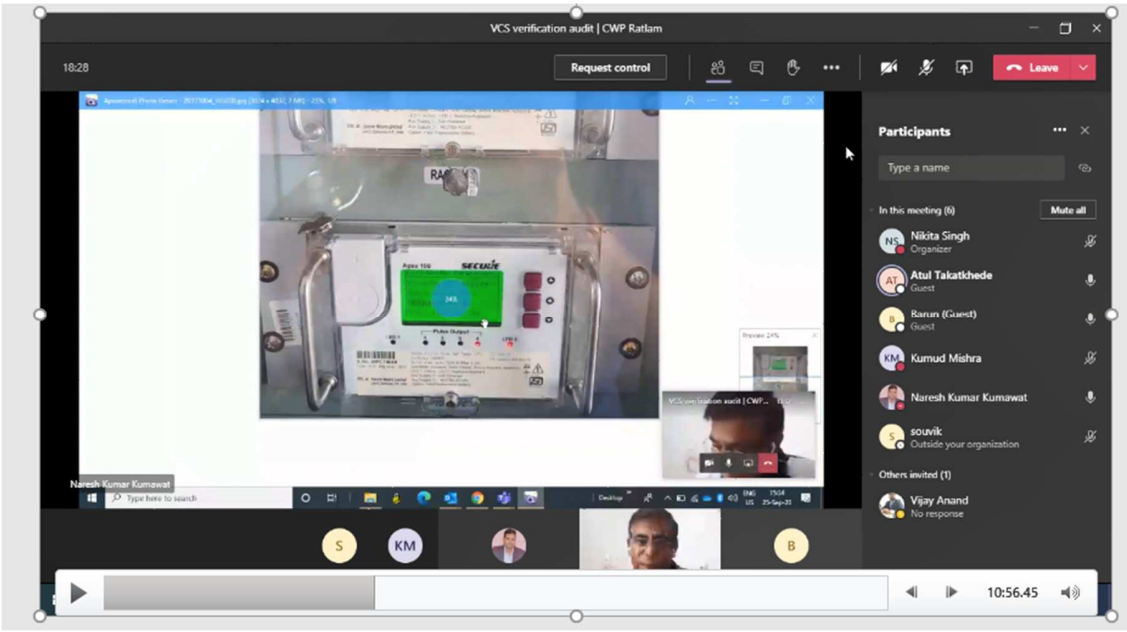
Abbreviations	Full texts
BM	Build Margin
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction(s)
CEA	Central Electricity Authority
CL	Clarification request
CM	Combined Margin
CMS	Central Monitoring system
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DNA	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
PP	Project Participant

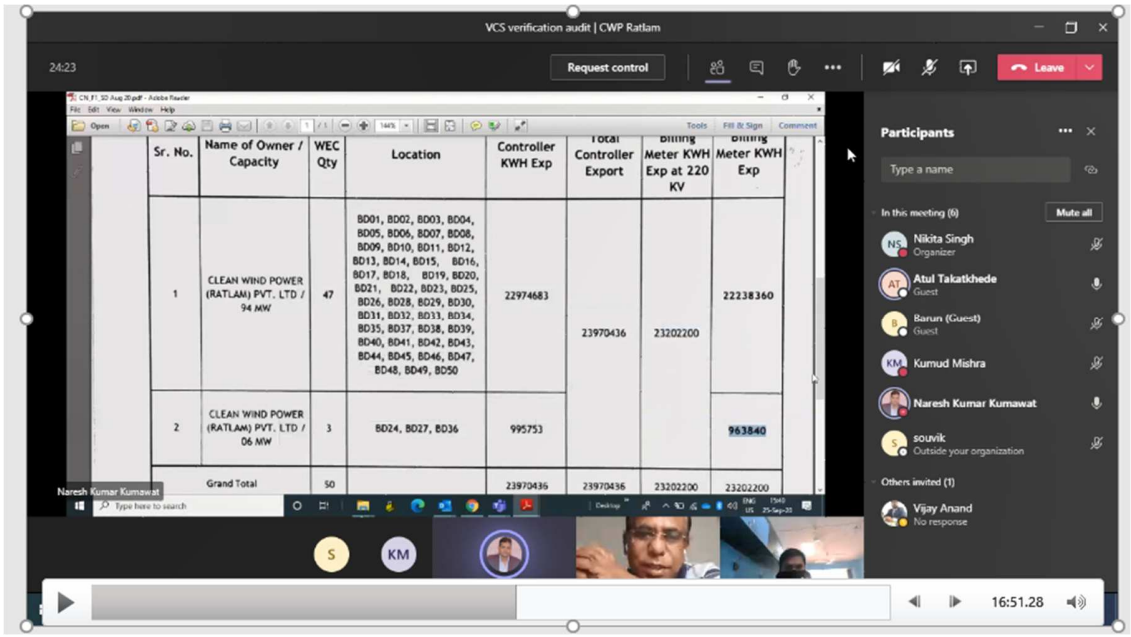
APPENDIX 5: CALIBRATION DETAILS OF THE METERS

Main Meter Details		Check Meter Details		Initial Meter Calibration Date	Due date of Calibration	Calibration compliance
Make	Secure	**Make**	Secure	13-March-2016	13-March-2021	Yes
Meter Serial No.	MPC74061	**Meter Serial No.**	MPC74060			
Accuracy class	0.2s	**Accuracy class**	0.2s			

APPENDIX 6: DETAILS OF REMOTE AUDIT & SITE PHOTOGRAPHS






VCS verification audit | CWP Ratlam
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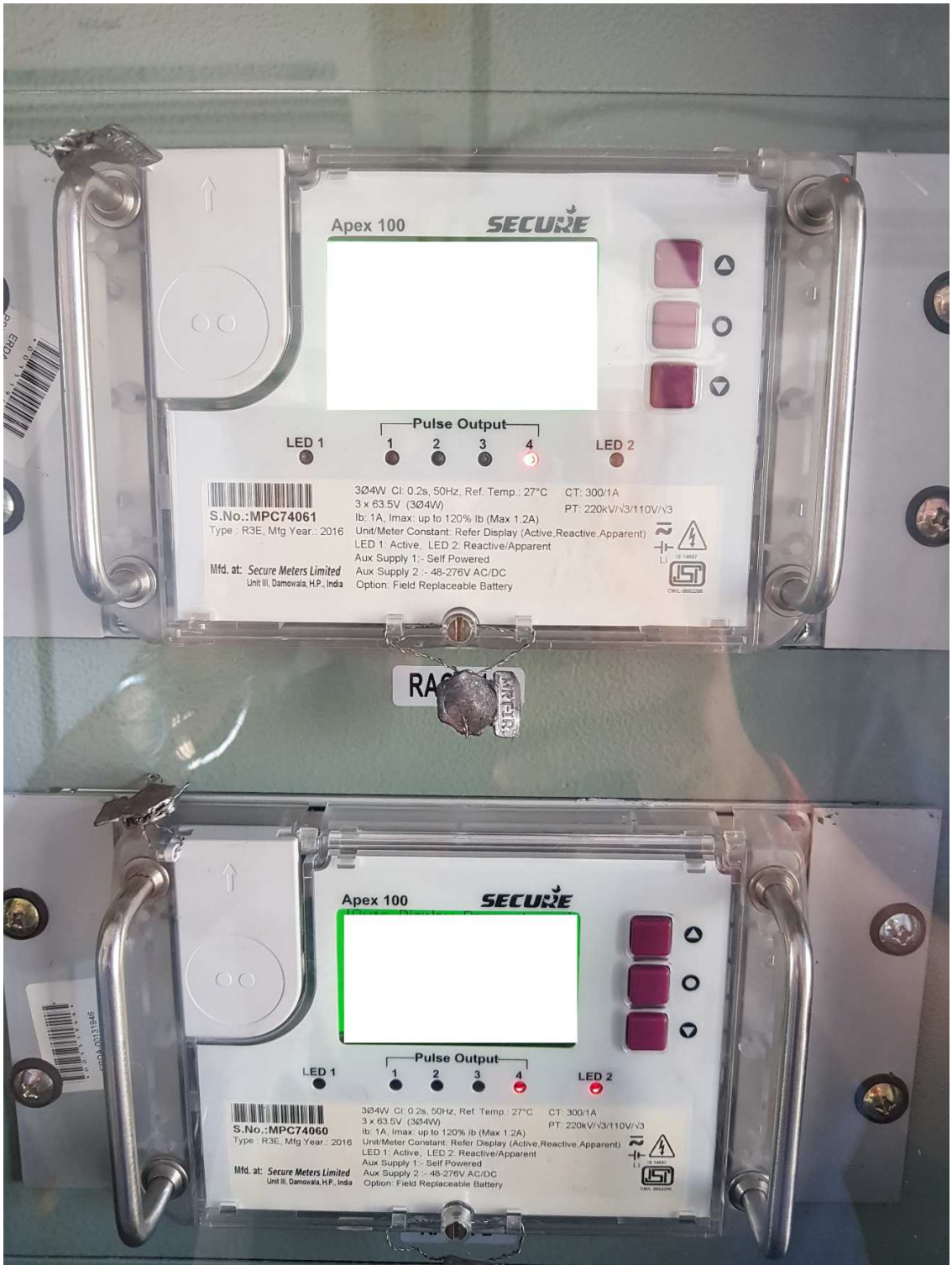
Leave
Participants
Type a name
In this meeting (6)
Mute all
Nikita Singh
Organizer
Atul Takatkhede
Guest
Barun (Guest)
Guest
Kumud Mishra
Naresh Kumar Kumawat
souvik
Outside your organization
Others invited (1)
Vijay Anand
No response
16:51.28
Naresh Kumar Kumawat
Sr. No.
Name of Owner / Capacity
WEC Qty
Location
Controller KWH Exp
Total Controller Export
Billing Meter KWH Exp at 220 KV
Billing Meter KWH Exp
1
CLEAN WIND POWER (RATLAM) PVT. LTD / 94 MW
47
BD01, BD02, BD03, BD04, BD05, BD06, BD07, BD08, BD09, BD10, BD11, BD12, BD13, BD14, BD15, BD16, BD17, BD18, BD19, BD20, BD21, BD22, BD23, BD25, BD26, BD28, BD29, BD30, BD31, BD32, BD33, BD34, BD35, BD37, BD38, BD39, BD40, BD41, BD42, BD43, BD44, BD45, BD46, BD47, BD48, BD49, BD50
2297683
23970436
23202200
22238360
2
CLEAN WIND POWER (RATLAM) PVT. LTD / 06 MW
3
BD24, BD27, BD36
995753
963840
Grand Total
50
23970436
23970436
23202200
23202200


UIN:NGB0340U001
BD-01


UIN:NGB0340U003
BD-03


Apex 100
SECURE
Pulse Output
LED 1
1 2 3 4
LED 2
S.No.:MPC74061
Type : R3E, Mfg Year.: 2016
Mfd. at: Secure Meters Limited
Unit III, Damowala, H.P., India
3Ø4W Cl: 0.2s, 50Hz, Ref. Temp.: 27°C
3 x 63.5V (3Ø4W)
Ib: 1A, Imax: up to 120% Ib (Max 1.2A)
Unit/Meter Constant: Refer Display (Active,Reactive,Apparent)
LED 1: Active, LED 2: Reactive/Apparent
Aux Supply 1:- Self Powered
Aux Supply 2 :- 48-276V AC/DC
Option: Field Replaceable Battery
CT: 300/1A
PT: 220kV/√3/110V/√3
Apex 100
SECURE
Pulse Output
LED 1
1 2 3 4
LED 2
S.No.:MPC74060
Type : R3E, Mfg Year.: 2016
Mfd. at: Secure Meters Limited
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