



Verification and certification report form for GS project activities

VERIFICATION AND CERTIFICATION REPORT

Title of the project activity	Vaayu India Wind Power Project in Andhra Pradesh
GS Reference number of the project activity	GS 4603
Version number of the verification and certification report	2.1Aa
Completion date of the verification and certification report	12/11/2020
Monitoring period number and duration of this monitoring period	03/09/2016 to 01/08/2018 (both days are included)
Version number of monitoring report to which this report applies	03 of 12/11/2020
Crediting period of the project activity corresponding to this monitoring period	25/09/2014 to 24/04/2021
Project participant(s)	1. Vaayu (India) Power Corporation Private Limited (Private Entity – Host Country) 2. First Climate Markets A.G. (Private Entity – Annex-I) 3. Numerco Limited (Private Entity – Annex-I)
Host Party	India
Sectoral scope(s), selected methodology(ies)	Sectoral Scope: 1 - Energy industries (renewable - / non-renewable sources) ACM0002, ver. 11.- Consolidated baseline methodology for grid-connected electricity generation from renewable sources.
Estimated GHG emission reductions or net anthropogenic GHG removals for this monitoring period in the registered PDD	177,791 tCO ₂ e
Certified GHG emission reductions or net anthropogenic GHG removals for this monitoring period	136,202 tCO ₂ e
Name of DOE	RINA Services S.p.A. (RINA)
Name, position and signature of the approver of the verification and certification report	Laura Severino (Authorized officer signing for the DOE) Head of Certification Innovation & Sustainability Unit 

SECTION A. Executive summary

Purpose and general description of the project

The project activity involves electricity generation by utilizing renewable wind energy. The project activity involves supply, erection, commissioning and operation of 63 machines of rated capacity 800 kW each. The machines are Enercon E-53 make. The project activity is located in Kurnool and Anantapur districts in the State of Andhra Pradesh. The project activity supplies clean and renewable power to the unified India grid system through regional power grid. The WECs under the project activity were commissioned between 02/08/2010 and 04/05/2011. The project being a renewable energy generation activity, it leads to removal of fossil fuel dominated electricity generation.

Location

The project activity is in Petnikota, Tummalapenta, Abdullapuram, Chintalayapalli villages in Kurnool district and Venkatampalli & Bhogasamudram villages in Anantapur district in Indian State of Andhra Pradesh, India.

Host Party(ies): India

Region/State/Province, etc.: Andhra Pradesh State

Scope of verification

Verification is the periodic independent review and ex-post determination by a DOE of the monitored reductions in GHG emissions that have occurred as a result of the registered GS project activity during a defined monitoring period. Certification is the written assurance by a DOE that, during a specific period in time, a project activity achieved the emission reductions as verified. The objective of this verification is to verify and certify emission reductions reported for the Vaayu India Wind Power Project in Andhra Pradesh for the period 03/09/2016 to 01/08/2018 (both days are included).

The scope of the verification is to verify that:

- The project activity has been implemented and operated in accordance with the registered PDD or any approved revised PDD;
- The project activity has achieved the monitoring details in accordance with the registered GS documents;
- The monitoring plan, including compliance with any guidance provided by the Board regarding deviations from the provisions of a registered plan and/or methodology;
- The data and calculation of GHG emission reductions have been assessed to correctly support the emission reductions being claimed.

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

Verification process

Verification is conducted using RINA procedures in line with the GS requirements and requirements specified in the CDM Validation and Verification Standard available at the time of the verification starts and applying standard auditing techniques. RINA assesses and determines that the implementation and operation of the project activity, and steps taken to report emission reductions comply with the GS criteria. The verification assessment involved a document review of relevant documentation and the on-site visit.

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

Conclusion

RINA commissioned by Vaayu (India) Power Corporation Private Limited has performed the verification of the emission reductions reported for the project activity "Vaayu India Wind Power Project in Andhra Pradesh", under GS Registration Reference No. GS 4603, for the monitoring period 03/09/2016 to 01/08/2018 (Including first and last date) with regard to the relevant GS requirements and principles for project activities. The project was validated by DOE "Det Norske Veritas" under CDM (validation report 2010-0502 of 18/08/2010), followed by PRC Validation by SGS (dated 20/07/2012) and the Project was Registered under GS on 14/09/2016.

SECTION B. Verification team, technical reviewer and approver

B.1. 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.	Team Leader, verifier and technical expert (TA 1.2)	IR	Mathew	Vijay	RINA India	√	-	√	√

B.2. 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	IR	Singh	Vinay	RINA India
2.	Approver	IR	Severino	Laura	RINA HO

SECTION C. Application of materiality

C.1. Consideration of materiality in planning the verification

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	
1.	<i>No risk envisaged</i>	<i>NIL</i>	<i>The project has successfully completed six CDM verifications and one GS verification. The monitoring parameter 'net export of electricity to grid' is monitored in calibrated energy meter duly approved by Southern Power Distribution Company of AP Limited. Hence, no risk envisaged.</i>	<i>Cross checking all input values in the emission reduction spreadsheet with electricity generation records, invoices and calibration/meter test reports of energy meters.</i>

C.2. Consideration of materiality in conducting the verification

>> In line with Guidelines for Application of materiality in verifications /14/, a reasonable level of assurance is defined for the verification of the project by complete verification of all the values indicated in the emission reduction spreadsheet with source documents such as electricity generation records, invoices at the document review stage and during remote site visit. There are no material errors, omissions or misstatements.

SECTION D. Means of verification

D.1. Desk review

The GS monitoring report version 01 of 12/09/2020, version 02 of 28/09/2020, version 03 of 12/11/2020 corresponding ER sheet for GS monitoring period version 01 of 12/09/2020, version 02 of 28/09/2020, version 03 of 12/11/2020 the registered CDM-PDD version 05 of 22/05/2012 submitted to Gold standard for transition, and Gold standard transition annex were assessed as a part of the verification. The list of all documents reviewed are referenced during the verification is available in Appendix 3 below.

D.2. On-site inspection

Duration of remote-site inspection: 30/09/2020 to 30/09/2020				
No.	Activity performed during remote site visit	Site location	Date	Team member
1.	Implementation and operation of the proposed project activity. Checked the monitoring equipment, interviewed key personnel of the plant to confirm the operational and data collection procedures, cross-checked between information provided in the monitoring report and data plant.	Kurnool district, and Anantapur district of Andhra Pradesh State, India	30/09/2020	Vijay Mathew
2.	Reviewed the information flows for generating, aggregating and reporting the monitoring parameters.			
3.	Checked calibration performance, reviewed calculations and assumptions made in determining the GHG data and emission reductions.			
4.	Checked the quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.			
5.	Cross-checked between information provided in the monitoring report and data evidence.			
6.	Checked the implementation of SDG.			

A complete desk review of the submitted MR Version 01.0 of 12/09/2020 **/01/** and ER version 01.0 of 12/09/2020 **/02/** and supportive evidences have been checked by the Verification Team.

In addition, audit team has conducted a remote site inspection via videoconference (Zoom) with PP on different topics as mentioned under section D.3 of this report. Based on the videoconference, MR review, as the review of Gold Standard rule update on COVID 19: Interim measures **/09/**, RINA Verification team has proceeded to skip the presential site visit due to the COVID-19 pandemic **/09/**. As per section 4.1 and 4.2 of Gold Standard rule update on COVID 19: Interim measures **/09/**, Verification team has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of verification.

- By review of MR & ER;
- By review of all supporting documents;
- By review of all approved CDM documents;
- By taking follow up actions by conducted interview with PP, to gather information about knowledge of project design, current situation via videoconference. Cross-checked evaluation under the scope of all information and references provided in MD. Details of interviewees, topics covered, and additional information presented in the below section “D.3 – Interviews”.

Verification team has also checked the requirements for alternative measures mentioned in the Gold Standard rule update on COVID 19: Interim measures **/09/**. The justification for the remote site visit requirements has been mentioned below.

Gold Standard rule update on COVID 19: Interim measures requirements	Verification team justification
4.1.1 Alternative Measures relating to mandatory on-site visits for VVBs audits include: a. A VVB may postpone site visits for on-site inspections, taking into account the rules of relevant national and local authorities (local to the DOE offices as well as to locality of the site visits), World Health Organization (WHO) recommendations, policies of the VVB (if any) and other relevant travel restrictions and guidance (for example, a requirement to self-isolation upon return from specific countries). b. If site visit cannot be postponed due to significant impact of delaying the site visit on VVB and/or project developer due to timeline/commitment as per validation/verification or GS-VERs delivery agreement, VVB may replace mandatory on-site visits with remote audits. The audit may include but not limited to validation, verification, the inclusion of VPAs, design change review etc.	The site visit for this project activity was not conducted due to the COVID-19 pandemic. The Gold Standard rule update on COVID 19: Interim measures dated 24/07/2020, on an exceptional basis, considering the COVID-19 pandemic, to extend the period in which validation and verification bodies may apply alternative measures of validation/verification to mandatory on-site inspections until 31 December 2020. The site visit cannot be postponed since a delay on performing the mandatory on-site visit for the GS project activity GS 4603, will impact on a delay in GS CERs delivery to its ERPA signed on 22/07/2020 with the buyer.
4.2.2 In case of 4.1.1 b the VVB shall: I. Use validation/verification techniques and advanced communication technology solutions to validate/verify information and compliance with applicable requirements to the extent possible, to ensure the completeness and credibility of the audit; II. Use means such as, but not limited to, tele/video meetings; interviews with relevant stakeholders, local authorities, project participants, persons responsible for data collections, end user and/or beneficiaries of the project; photographic evidence, video recordings; data collection using drones, satellite image (where possible); relevant documents; and other publicly available information.	Verification team has done the follow-up actions by: Team has carried out interviews with relevant personals to verify the implementation and operation of the GS project activity as per the registered PDD or any approved revised PDD. Pervious periodic monitoring report and verification reports are assessed. Further, picture of monitoring meters, and other relevant background documents were provided and assessed. The verification team has carried out interviews using Zoom application as well as voice call, in order to assess the information on registered monitoring plan in the PDD and transition annex. Further, to gain information regarding the implementation, data collection procedure and operation of the project activity. Team has reviewed the information flows for generating, aggregating and reporting the monitoring parameters. The ex post parameters are sourced from monthly generation report, issued by APCPDCL (a public utility company). All the generation reports are provided and verified. Cross checks of net generation data are done against the invoice submitted by the PP to APCPDCL. All the invoices are verified. PP presented during the videoconference all documents related to monitoring and equipment calibration. The calculations and assumptions made in determining the CERs were reviewed and

	discussed with PP by videoconference. Documentary evidences were reviewed to confirm the implementation and status of the SDGs.
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D.3. Interviews

No .	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Rajanna	Adepu	Project Site In-charge WWIL	30/09/2020	Project description, implementation status of the project, Monitoring plan, and ER calculations. Metering equipment accuracy/calibration, performance frequency (project boundaries processes and equipments, involved-possible leakages). Monitoring practices (against the requirements of the PDD and the selected methodology) Cross-check between information provided in the monitoring report and data from other sources such as JMR and invoices. Operating staff competence and the risks for inappropriate operation and data collection procedures of the project (training needs). Implementation and monitoring of SDGs.	Vijay Mathew
2.	N	Gopalkrishnan	WWIL –O&M	30/09/2020		
3.	Borah	Deep	CDM Consultant, representing Vaayu (India) Power Corporation Private Limited	30/09/2020		
4.	Reddy	Nageshwar	Local villager (employed as Security Person, via local agency)	30/09/2020	Implementation status of SDGs, the current status of employment, their comments & feedback, etc.	
5.	S	Sabari	Local villager (employed under Security agency)	30/09/2020		
6.		Dasthagiri	Local Villager (employed as Security Supervisor)	30/09/2020		
7.	Reddy	Venkata	Local Villager (employed as Junior Supervisor for Security, IPSA)	30/09/2020		

D.4. Sampling approach

>> N/A

D.5. Clarification requests, corrective action requests and forward action requests raised

Areas of verification findings	No. of CR	No. of CAR	No. of FAR
Compliance of the monitoring report with the monitoring report form			
Compliance of the project implementation with the registered PDD			
Post-registration changes			
Compliance of the monitoring plan with the monitoring methodology including applicable tool and standardized baseline			
Compliance of monitoring activities with the registered monitoring plan			
Compliance with the calibration frequency requirements for measuring instruments		1	
Assessment of data and calculation of emission reductions or net removals			
Others (please specify) – Assessment of sustainability parameters	2	1	
Total	2	2	

SECTION E. Verification findings

E.1. Compliance of the monitoring report with the monitoring report form

Means of verification	Comparing the monitoring report /01/ with the monitoring report form /08/ provided by GS.
Findings	N/A
Conclusion	RINA confirms that the monitoring report version 1.0 of 12/09/2020 is prepared using GS monitoring report template version 01, 2017 which is the latest available template and completed with relevant information as per the template requirement. The final version of the monitoring report is version 03 of 12/11/2020, which also complies with the requirements of the MR template.

E.2. Remaining forward action requests from validation and/or previous verification

>> N/A

E.3. Compliance of the project implementation with the registered project design document

Means of verification	As part of the remote audit RINA was able to confirm that the project implementation is in accordance with the project description contained in the PDD /03/ /06/. Further, RINA has verified the validation and transition annex /05/ /07/ /15/. The project capacity involves installation of 63 nos. of Wind Energy Convertors (WECs) of aggregate capacity 50.4 MW. Each WEC is of 800 kW capacity. Type and capacity of individual WECs were confirmed from the validation and previous verification reports /05/ /06/ /07/ /15/ and monthly generation statements /16/. It was further assessed through the technical specifications of the WECs model E-53. During the remote audit, no changes have been observed or identified which may impact the additionality as there was no change in the installed capacity, no addition of component nor extension of technology, no addition nor removal of project sites; no change has been observed or identified that may impact the scale of the project activity or applicability of baseline and monitoring methodology ACM0002, version 11 /04/. The net electricity generation by the project from 03/09/2016 to 01/08/2018, is taken into consideration. The project contributes to the sustainable development which includes, but not limited to, enhancement of
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	local economy, creating employment and many other benefits to the rural population. Additionally, the verification team has reviewed the CDM approved documents for the period 03/09/2016 to 01/01/2019 and it has been identified that the verifying DOE has conducted a physical site inspection and confirmed that monitoring plan has been implemented as per registered PDD.
Findings	N/A
Conclusion	The project is implemented according to the description presented in the PDD, which is discussed above. The verifier confirms, through a remote desktop audit and documents inspection that all features of the CDM & Gold Standard project activity including the equipment's, data collecting systems and storage have been implemented in accordance with the registered PDD & GS Transition Annex. The project activity is completely operational and there is no any change in project design or any deviation from the registered project activity.

E.4. Post-registration changes

E.4.1. Temporary deviations from the registered monitoring plan, monitoring methodology or standardized baseline

>> N/A

E.4.2. Corrections

>> N/A

E.4.3. Changes to the start date of the crediting period

>> N/A

E.4.4. Inclusion of a monitoring plan to a registered project activity

>> N/A

E.4.5. Permanent changes from registered monitoring plan, monitoring methodology or standardized baseline

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There was a permanent change made during the previous monitoring periods of CDM. PP requested for a permanent change in Monitoring plan as the frequency of energy meter calibration has made in-line with the CEA regulations 2006 issued by the Central Electricity Authority /10/. PP has requested for a permanent change in the calibration frequency from annual to 'once in a five year'. This request was approved by UNFCCC/27/. Further, verified the validation report w.r.t. PRC-4677-001 /15/.

E.4.6. Changes to the project design of a registered project activity

>> N/A

E.4.7. Types of changes specific to afforestation and reforestation project activities

>> N/A

E.5. Compliance of monitoring plan with the monitoring methodology including applicable tool and standardized baseline

Means of verification	During the monitoring period it was noted that the parameters (also discussed in detail in section E.6.2) and the monitoring plan was found as per the applied methodology. There is no deviation observed between monitoring plan of the project activity with the monitoring plan of the applied methodology of the project activity.
Findings	N/A
Conclusion	All monitoring parameters, monitoring and calibration procedures follow the methodology requirements. No recommendation was made during this verification.

E.6. Compliance of monitoring activities with the registered monitoring plan

E.6.1. Data and parameters fixed ex ante or at renewal of crediting period

Means of verification	Data and parameters fixed ex-ante as listed in the monitoring report have been crosschecked and reviewed as applicable against the registered PDD, monitoring plan as well as against the applied methodology and GS transition annex:			
	DATA/PARAMETER Unit	Source of data	Reported value for the project period	Assessment/Observation
	SDG Indicator 13.2.1 - Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other); EF _{grid,OM,y} (tCO ₂ e/MWh)	Registered PDD /03/, Gold standard transition Annex /05/	0.98756	The value is ex-ante fixed for the fixed crediting period as per the registered PDD, and GS transition annex, which has been justified and validated by validation DOE to follow the applied methodology and tool and already approved by CDM and GS /03/ /04/ /05/ /15/.
	SDG Indicator 13.2.1 - Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate	Registered PDD /03/, Gold standard transition Annex /05/	0.81792	The value is ex-ante fixed for the fixed crediting period as per the registered PDD, and GS transition annex, which has been justified and validated by validation DOE to follow the applied methodology and tool and already approved by CDM and

	resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other); EF _{grid,BM,y} (tCO ₂ e /MWh)			GS /03/ /04/ /05/ /15/.
	SDG Indicator 13.2.1 - Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan which increases their ability to adapt to the adverse impacts of climate change, and foster climate resilience and low greenhouse gas emissions development in a manner that does not threaten food production (including a national adaptation plan, nationally determined contribution, national communication, biennial update report or other); EF _{grid,CM,y} (tCO ₂ e /MWh)	Registered PDD /03/, Gold standard transition Annex /05/	0.94515	The value is ex-ante fixed for the fixed crediting period as per the registered PDD, and GS transition annex, which has been justified and validated by validation DOE to follow the applied methodology and tool and already approved by CDM and GS /03/ /04/ /05/ /15/.
Findings	N/A			
Conclusion	RINA confirms that the parameters listed above are fixed ex-ante and used for baseline, project emissions and leakage emissions calculation in accordance with the applied methodology and methodological tools and they are the same used at the validation stage.			

E.6.2. Data and parameters monitored

Means of verification		
	Data/Parameter	Assessment
	Relevant SDG Indicator/Safeguarding Principle	SDG Indicator 7.2.1 – Renewable energy share in the total final energy consumption
	Data Unit	MWh (Mega-watt hour)
	Description	Net electricity supplied to the grid by the Project activity (EG _{PJ,y}) .
	Source of data to be used	Net electricity supplied to the grid by the Project activity calculated using the formula described in monitoring plan.

	Value of monitored parameter for the monitoring period	144,106.462
	Monitoring equipment	The parameter is a calculated using measured values. Hence no monitoring equipment is used.
	Accuracy of the monitoring equipment	Not applicable
	Measuring/Reading/Recording frequency	Continuously measured and monthly recording. This is as per registered monitoring plan /03/ /05/ . Records of monthly generation report (JMR) for the whole monitoring period is cross checked found the reported values to be correct /16/ /17/ .
	Calculation method (if applicable)	This parameter is calculated using formula; $EG_{PJ,y} = EG_{Export,y} - EG_{pi}$ Where; EG_{Export,y} - Electricity exported by the project activity to the grid after apportioning of line losses between 33 kV metering point (Cluster meter) & Bulk metering point (132 kV) metering point. EG_{pi} - Electricity Import recorded at 33 kV (JMR at 33kV metering point) cluster metering points connecting total 63 machines of the project activity. The PP has made cluster of WTG for metering and each cluster have exclusive separate metering (33 kV metering points) arrangement at project site. The electricity export and import by the project activity is taken from the summation of the joint meter readings noted from the cluster meters connecting 63 turbines of the project activity. Project WECs along with non-project WECs are further connected to WWIL pooling substation (132/33 kV). There are 2 sets of main and check meters (known as bulk metering points) installed at WWIL pooling substation (132kV), electricity exported and imported by all the WTGs (project and non-project) recorded through bulk meters. Transmission loss between metering point at 33kV and the metering point at 132kV is applied to the meter reading taken at meters connected at 33 kV for the project activity.
Data/Parameter		Assessment

	Relevant SDG Indicator/Safeguarding Principle	SDG Indicator 7.2.1 – Renewable energy share in the total final energy consumption
	Data Unit	MWh (Mega-watt hour)
	Description	Electricity exported by project activity to grid after apportioning of transmission losses between 33kV metering point (Cluster meter) & 132kV metering point (Bulk metering point), ($EG_{Export,y}$)
	Source of data to be used	Electricity exported by project activity calculated using the formula described in monitoring plan.
	Value of monitored parameter for the monitoring period	144,304.412
	Monitoring equipment	The parameter is a calculated using measured values. Hence no monitoring equipment is used.
	Accuracy of the monitoring equipment	Not applicable
	Measuring/Reading/Recording frequency	Continuously measured and monthly recording. This is as per registered monitoring plan /03/ /05/. Records of monthly generation report (JMR) for the whole monitoring period is cross checked found the reported values to be correct /16/.
	Calculation method (if applicable)	This parameter is calculated using formula $EG_{Export,y} = EG_{pe} * (1 - L_{ep} (\%))$ Where, EG_{pe} - Electricity Export recorded at 33kV (JMR at 33kV metering point) cluster metering points connecting total 63 machines of the project activity. L_{ep}- Total percentage of Transmission loss for export between the metering point at 33 kV metering points (sum of all the WTGs connected to Bulk metering point including non-project activity as well as project activity WTGs) and the metering point at 132 kV at the WWIL pooling substation.
	Data/Parameter	Assessment
	Relevant SDG Indicator/Safeguarding Principle	SDG Indicator 7.2.1 – Renewable energy share in the total final energy consumption
	Data Unit	MWh (Mega-watt hour)

	Description	Electricity Export recorded at 33kV (JMR at 33kV metering point) cluster metering points connecting total 63 machines of the project activity, (EG _{pe})
	Source of data to be used	Electricity export to the grid as per the joint meter reading recorded at cluster metering points connecting 63 turbines at 33kV level.
	Value of monitored parameter for the monitoring period	144,465.910
	Monitoring equipment	Tri-vector electronic energy meters are used to monitor Electricity export.
	Accuracy of the monitoring equipment	The accuracy of the monitoring equipment used to measure the values is 0.2s, which is as per the registered monitoring plan /03/ /05/.
	Measuring/Reading/Recording frequency	Continuously measured and monthly recording. This is as per registered monitoring plan /03/ /05/. Records of monthly generation report (JMR) for the whole monitoring period is cross checked found the reported values to be correct /16/.
	Calculation method (if applicable)	Not applicable.
	Data/Parameter	Assessment
	Relevant SDG Indicator/Safeguarding Principle	SDG Indicator 7.2.1 – Renewable energy share in the total final energy consumption
	Data Unit	MWh (Mega-watt hour)
	Description	Electricity Import recorded at 33kV (JMR at 33kV metering point) cluster metering points connecting total 63 machines of the project activity, (EG _{pi})
	Source of data to be used	Electricity import from the grid as per the joint meter reading recorded at cluster metering point connecting 63 turbines at 33kV level.
	Value of monitored parameter for the monitoring period	197.950
	Monitoring equipment	Tri-vector electronic energy meters are used to monitor Electricity export.
	Accuracy of the monitoring equipment	The accuracy of the monitoring equipment used to measure the values is 0.2s, which is as per the registered monitoring plan /03/ /05/.
	Measuring/Reading/Recording frequency	Continuously measured and monthly recording. This is as per registered monitoring plan /03/ /05/. Records of monthly generation report (JMR) for the whole monitoring period is cross

		checked found the reported values to be correct /16/.
	Calculation method (if applicable)	Not applicable.
	Data/Parameter	Assessment
	Relevant SDG Indicator/Safeguarding Principle	SDG Indicator 7.2.1 – Renewable energy share in the total final energy consumption
	Data Unit	MWh (Mega-watt hour)
	Description	Electricity Export recorded at 132 kV meters (main and check) at wind world pooling substation connecting machines of the project activity and machines commissioned by the other project developers, (EG _e)
	Source of data to be used	Electricity export to the grid as per the joint meter reading recorded at 132 KV of the wind world pooling substation (Bulk metering point) connecting machines of the project activity and machines commissioned by the other project developers.
	Value of monitored parameter for the monitoring period	219,813.840
	Monitoring equipment	Tri-vector electronic energy meters are used to monitor Electricity export.
	Accuracy of the monitoring equipment	The accuracy of the monitoring equipment used to measure the values is 0.2s, which is as per the registered monitoring plan /03/ /05/.
	Measuring/Reading/Recording frequency	Continuously measured and monthly recording. This is as per registered monitoring plan /03/ /05/. Records of monthly generation report (JMR) for the whole monitoring period is cross checked found the reported values to be correct /16/.
	Calculation method (if applicable)	Not applicable.
	Data/Parameter	Assessment
	Relevant SDG Indicator/Safeguarding Principle	SDG Indicator 7.2.1 – Renewable energy share in the total final energy consumption
	Data Unit	MWh (Mega-watt hour)
	Description	Total percentage of Transmission loss for export between the metering point at 33 kV metering points (sum of all the

		WECs connected to Bulk metering point including non-project activity as well as project activity WECs) and the metering point at 132 kV at the wind world pooling substation, (L_{ep})
	Source of data to be used	Transmission Loss is directly applied from the joint meter reading for the project activity. This value is certified by the State utility and Wind World India in the transmission loss calculation sheet.
	Value of monitored parameter for the monitoring period	Monthly values for entire monitoring period are reported in the ER calculation sheet. The monthly values were verified from the transmission losses calculation sheet /28/ issued by state utility and found to be consistent.
	Monitoring equipment	Since, this is a calculated parameter, no monitoring equipment is used.
	Accuracy of the monitoring equipment	Not applicable.
	Measuring/Reading/Recording frequency	The parameter is calculated and recorded on monthly basis; however, the input values used to calculate the value of L_{ep} are continuously monitored and monthly recorded.
	Calculation method (if applicable)	This parameter is calculated using formula as mentioned under section C of the MR and in section C of GS transition annex.
Findings	N/A	
Conclusion	RINA is able to confirm that the monitoring has been implemented in full compliance with the registered monitoring plan and all the parameters listed in the registered monitoring plan have been completely monitored.	

E.6.3. Implementation of sampling plan

Means of verification	N/A
Findings	N/A
Conclusion	N/A

E.7. Compliance with the calibration frequency requirements for measuring instruments

Means of verification	According to approved monitoring plan in the registered PDD/03/ 05/ the meters are to be tested and calibrated once in 5 years. The test reports w.r.t. installation are provided and verified /20/. The details of monitoring equipment is involved in the project activity and their calibration dates and calibration due dates are summarised in the tables below. All the meters are of accuracy class of 0.2s. The assessment team has checked the energy meter test reports/20/ for accuracy and validity, to assure reliability and steadiness of monitoring results.										
	Meters installed at project site (33 kV):										
	<table><tr><th>Phase number</th><th>Meter Type and meter serial no.</th><th>Calibration Date</th><th>Calibration Due Date</th></tr><tr><td>Phase-1</td><td>Main Meter APX00312</td><td>01/02/2015</td><td>01/02/2020</td></tr></table>				Phase number	Meter Type and meter serial no.	Calibration Date	Calibration Due Date	Phase-1	Main Meter APX00312	01/02/2015
Phase number	Meter Type and meter serial no.	Calibration Date	Calibration Due Date								
Phase-1	Main Meter APX00312	01/02/2015	01/02/2020								

		Check Meter APX00345	01/02/2015	01/02/2020
	Phase-2	Main Meter APW00090	17/03/2016	17/03/2021
		Check Meter APW00091	06/02/2016	06/02/2021
	Phase-3	Main Meter APW00083	22/02/2016	22/02/2021
		Check Meter APW00084	06/02/2016	06/02/2021
	Phase-4	Main Meter APW00097	17/03/2016	17/03/2021
		Check Meter APW00098	17/03/2016	17/03/2021
	Phase-5	Main Meter APW00086	22/02/2016	22/02/2021
		Check Meter APW00087	08/02/2016	08/02/2021
	Phase-6	Main Meter APW00093	22/02/2016	22/02/2021
		Check Meter APW00094	17/03/2016	17/03/2021
	Phase-7	Main Meter APX00310	01/02/2015	01/02/2020
		Check Meter APX00311	01/02/2015	01/02/2020
	Meters installed at 132/33 kV WWIL substation (Bulk meters):			
	Phase number	Meter Type and meter serial no.	Calibration Date	Calibration Due Date
	Phase-1, Phase 4 and Phase 7	Main Meter 02798585	06/03/2015	06/03/2020
		Check Meter 02798586	06/03/2015	06/03/2020
	Phase-2, Phase 3, Phase 5 and Phase 6	Main Meter 02798587	06/03/2015	06/03/2020
		Check Meter 02798588	06/03/2015	06/03/2020
	From the above, it is evident that calibration of meters covers the monitoring period. There is no delay or any change in meter observed during the current monitoring period.			
Findings	CAR 01 is raised. CAR 01 PP has provided the details of the meters installed at project site (33 kV). However, the details of meters installed at 132/33 kV WWIL substation (Bulk meters) is not provided. Further, the calibration due date mentioned in MR for phase 7 is not in line with the calibration frequency mentioned in GS transition annex. CAR 01 is closed. More information on how the CAR 01 is closed, is provided in Appendix-4 of the FVR.			
Conclusion	RINA confirms that the calibration confirms the proper functioning of the monitoring equipment and is valid for the whole verification monitoring period. According to clause 338 (b), and 373 of VVS version 02, verification team has checked calibration/meter test reports to confirm that the frequency of calibration is carried out as specified in the registered monitoring plan (clause 358, 361, and 365 of VVS, version 2.0)			

E.8. Assessment of data and calculation of emission reductions or net removals

E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

Means of verification	The baseline emissions are the product of net electricity exported to the grid $EG_{PJ,y}$ expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor. Baseline emission factor is calculated as combined margin, consisting of a combination of operating margin (OM) and build margin (BM) factors. $BE_y = EG_{PJ,y} * EF_{grid,CM,y}$ BE_y is the Baseline emissions in year y (tCO₂/yr). $EG_{PJ,y}$ is the Quantity of net electricity generation that is produced and fed into the grid as a result of the implementation of the CDM project activity in year y (MWh/yr). This as calculated as difference of $EG_{export,y} - EG_{pi}$ (import) as monitored continuously and recorded in monthly generation reports. As stated in the section E.6.2 above, $EG_{export,y}$ and EG_{pi} during the monitoring period is 144,304.412 MWh, and 197.950 MWh respectively which results to $EG_{PJ,y}$ as 144,106.462 MWh for the monitoring period and the measurement is in line with the applied methodology and registered monitoring plan. The monthly $EG_{export,y}$, EG_{pi} reported values are found consistent with monthly generation records /16/ /28/. Further, the net export of electricity is cross checked from the monthly invoices raised /17/ to state utility and found both monthly generation report and invoices are consistent. Hence, reported values of monthly electricity export and import is correct. $EF_{grid,CM,y}$ (combined margin grid emission factor) of 0.94515 tCO₂/MWh was fixed ex-ante which is confirmed from the registered PDD/03/, GS transition annex /05/ and validation report /15/. The value found consistent. Accordingly, the resulted Baseline emissions (BE_y) for the current monitoring period is 136,202 tCO_{2e}.
Findings	N/A
Conclusion	RINA confirms that baseline emissions have been appropriately calculated and are consistent with remote audit, site visit observations during CDM verification, the applied methodology and registered PDD /01/ , /04/ , /05/ , /15/ , /16/ , /28/ .

E.8.2. Calculation of project GHG emissions or actual net GHG removals by sinks

Means of verification	N/A
Findings	N/A
Conclusion	N/A

E.8.3. Calculation of leakage GHG emissions

Means of verification	N/A
Findings	N/A
Conclusion	N/A

E.8.4. Summary of calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

Means of verification	Emission Reductions: The emission reductions in this monitoring period are: $ER_y = BE_y - PE_y - L_y$ Where, ER_y is the total emission reductions of the project activity during the year y in tCO_{2e}; BE_y is the baseline emissions for the project activity during the year y in tCO_{2e}; PE_y is the emissions for the project activity during the year y in tCO_{2e}; LE_y is the leakage emissions for the project activity during the year y in tCO_{2e}. As explained in section E.8.1 above, the resulted Baseline emissions (BE_y) for the monitoring period is 136,202 tCO_{2e}. Similarly as explained in section E.8.2 and
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	section E.8.3 project emission and leakage emissions are zero for the monitoring period. Hence, resulted emission reduction for the monitoring period is 136,202 tCO₂e. The verification team has further verified the values of ER from the approved CDM MR and ER sheet for sixth monitoring period (CDM MR version 1.2 of 20/12/2019 and ER sheet version 1.1), as publically available under the CDM web-interface for UN4677. The calculated ERs are consistent with the ER approved under CDM.
Findings	N/A
Conclusion	The data presented in the monitoring report /01/ and emission reduction worksheet /02/ were assessed by reviewing in detail project documentation, collection of monitored data, observation of established monitoring and reporting practices and assessment of the reliability of monitoring equipment. Sufficient evidences were presented and verified by RINA for the reported emission reductions as listed above.

E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

Means of verification	The emission reductions from the project for the monitoring period as reported in the monitoring report revision 3 of 12/11/2020 /01/ is 136,202 tCO ₂ e. The reported emission reductions are 23.39% lower than the estimated emission reduction of 177,791 tCO ₂ e for the period as per the ex-ante estimated value in the registered PDD version 05 of 22/05/2012 /03/ .
Findings	N/A
Conclusion	The emission reduction calculations provided in the spreadsheet /02/ have been verified to be correct and in line with the registered PDD /03/ .

E.8.6. Remarks on difference from estimated value in registered PDD

Means of verification	N/A
Findings	N/A
Conclusion	N/A

E.8.7. Actual GHG emission reductions or net anthropogenic GHG removals by sinks during the first commitment period and the period from 1 January 2013 onwards

Means of verification	GHG emission reductions or net GHG removals by sinks reported up to 31 December 2012	GHG emission reductions or net GHG removals by sinks reported from 1 January 2013 onwards
	NA	136,202 tCO ₂
Findings	N/A	
Conclusion	RINA confirms that the actual GHG emission reductions achieved during period starting from 1st January 2013 onwards was verified to be 136,202 tCO ₂ e.	

E.8.8. Assessment of the sustainability parameters

Means of verification	Data variable	Source of Data	Reported value for the project period
	SDG indicator 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value (category: Quality of Employment)	Documentation pertaining to training programmes, awareness generation activities, photographs, interviews etc.	Year 2016, 2017 & 2018: 06 nos. of occupational health safety, capacity building, awareness trainings and technical trainings are conducted. Around 30 no. of employees are benefited from these programme.
	Assessment		

The records of employee, attendance sheet **/23/**, training records **/24/** of employees, grievance register **/18/** confirm that the project contributes to quality of employment.

Data variable	Source of Data	Reported value for the project period
SDG indicator 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value (category: Quantitative employment and income generation)	Attendance Sheet and employment records maintained by Project Developer	Around 94 employees are currently associated with the project activity, out of which a total of 35 employees were added during the period 2016-2018. - Specifically, 21 local people have been employed as regular employee and 14 were employed under contractual employment for the project activity during the monitoring period under consideration. Corresponding details of employee, date of joining, current status and sample copies of attendance sheets and training documents on annual monitoring have been verified by the DOE.

Assessment

The records of employee, attendance sheet **/23/**, training records **/24/** of the employees, employee list **/29/** confirm that the project contributes to Quantitative employment and income generation.

Additional parameters reported by PP w.r.t. relevant SDG indicators associated with the project during the monitoring period:

Data variable	Source of Data	Reported value for the project period
SDG 3: Good Health & Well-being	Records of CSR programs	Year 2016 to 2018 various activities related to various health and hygiene services has been taken up by the PP. more than 100 health check-up events and generic awareness programs conducted in and around the project region (across different villages) in the form of a 'Mobile Health Care Unit' (MHCU). This health & wellbeing

			program has benefited more than 4500 lives were positively impacted during the monitoring period. Additionally, PP has provided RO water purified in 6 government schools around the project region. This provided access to clean drinking water for students at schools.
	Assessment		
	The records of fund utilization certificate from implementing NGO /25/ and CSR reports /27/ confirm that the project contributes to Good Health & Well-being.		
	Data variable	Source of Data	Reported value for the project period
	SDG 4: Quality Education	Records of CSR programs	Team verified the details w.r.t. the digital education programme implemented by the PP. During the period, i.e. 2016-2018 3 schools near the project region were supported with a digital e-learning program for underprivileged students, with modern platforms for learning. Additionally, PP has conducted various creative and awareness building programs through a dedicated program called “Creative Minds”, specially designed to engage students at schools.
Findings	Assessment		
	The records maintained by PP in the form of CSR Reports & Photographs have been assessed. Fund utilization Certificates with etc. of the implementing NGO /25/ , CSR reports /26/ and NGO Reports /19/ and it can be confirmed that the project contributes to Quality Education and overall well-being for students.		
	CR 01, CR 02 and CAR 02 are raised; CR 01 PP has submitted the documents/evidence w.r.t. the sustainability monitoring parameters. However, the evidence w.r.t. number of Health and safety trainings for qualitatively better work opportunities during Operation and Maintenance; is not fully covering the entire monitoring report. CR 02 PP has submitted the translated grievance register in English. However, PP is requested to provide the copy of the original grievance register in local language.		

	CAR 02 PP has mentioned the total number of Health and safety trainings for qualitatively better work opportunities during Operation and Maintenance w.r.t. SDG 8.5.2. However, the annual breakup of trainings are not mentioned in section D.2. of the Monitoring report. CAR 02, CR 01 and CR 02 are closed. More information on how the CAR 02, CR 01 and CR 02 are closed, is provided in Appendix-4 of the FVR.
Conclusion	RINA confirms that monitoring of all the sustainable development monitoring parameters during this monitoring period is in line with registered PDD /03/,gold standard transition annex/05/ are consistent with site visit observations, the previous verification report and documents submitted by PP /01/, /02/, /05/, /06/, /15/, /18/, /23/, /24/, /25/, /26/, /29/.

SECTION F. Internal quality control

The draft final verification report before being submitted to the client will be/is subjected to an independent technical review to confirm that all validation activities has been completed according to the pertinent RINA's procedures. The technical review will be/is performed by a technical reviewer(s) qualified in accordance with the RINA's qualification procedure.

SECTION G. Verification opinion

RINA Services Spa (RINA) has performed verification of the emission reductions reported for the project activity "Vaayu India Wind Power Project in Andhra Pradesh", GS Registration Reference No. GS 4603 (CDM Reference 4677) for the period "03/09/2016 to 01/08/2018" (both days are included), with regard to the relevant GS requirements and principles. The project participants are responsible for the preparation for the collection of data in accordance with the monitoring plan and the reporting emission reductions from the project. It is RINA's responsibility to express an independent verification opinion on the reported emission reductions from the project and does not express any opinion on the selected baseline scenario or on the validated and registered PDD. Based on documented evidences and corroborated by an remote assessment RINA can confirm that: (i) the project has been implemented and operated as per the registered PDD; (ii) the monitoring report and other supporting documents provided are complete and verifiable and in accordance with the applicable GS requirements and principles; (iii) the monitoring is in place as per the applied baseline and monitoring methodology; (iv) the monitoring complies with the registered monitoring plan; (v) the monitoring plan in the registered PDD is as per the applied baseline and monitoring methodology.

SECTION H. Certification statement

It is RINA's opinion that the GHG emission reductions stated in the final monitoring report version 03 of 12/11/2020 for the project activity "Vaayu India Wind Power Project in Andhra Pradesh" in India, for the period "03/09/2016 to 01/08/2018" (including first and last date) are fairly stated and consistent with the emission reductions reported for the equivalent period under the approved CDM monitoring report & ER spreadsheet. The GHG emission reductions were calculated correctly on the basis of the approved monitoring methodology "ACM0002 - Consolidated baseline methodology for grid connected electricity generation from renewable sources" (version 11, EB 52). Hence RINA is able to certify that the emission reductions from the project during the monitoring period "03/09/2016 to 01/08/2018" (Including first and last date) amount to 136,202 tCO₂e. The vintage wise verified volumes are as follows;

Monitoring Period	Quantity (tCO ₂ e)
Vintage 2016 (03/09/2016 to 31/12/2016)	20,178
Vintage 2017 (01/01/2017 to 31/12/2017)	65,282
Vintage 2018 (01/01/2018 to 01/08/2018)	50,742
Total	136,202

Appendix 1. Abbreviations

Abbreviations	Full texts
APCPDCL	Andhra Pradesh Central Power Distribution Company Limited
BE	Baseline Emissions
CAAT	Computer Assisted Auditing Technique
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM M&P	Modalities and Procedures CDM
CEA	Central Electricity Authority
CER(s)	Certified Emission Reduction(s)
CH ₄	Methane
CR	Clarification Request
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reductions
FAR	Forward Action Request
GHG(s)	Greenhouse gas(es)
GS	Gold Standard
GWP	Global Warming Potential
IPCC	Intergovernmental Panel on Climate Change
MoV	Means of Verification
MR	Monitoring Report
NGO	Non-governmental Organization
PDD	Project Design Document
PE	Project Emission
PP(s)	Project Participant(s)
Ref.	Document Reference
RINA	RINA Services Spa
SS(s)	Sectoral Scope(s)
TA(s)	Technical Area(s)
UNFCCC	United Nations Framework Convention on Climate Change
VIPCPCL	Vaayu (India) Power Corporation Private Limited
VVS	Validation and Verification Standard
WEC	Wind Energy Convertors
WWIL	Wind World (India) Limited

Appendix 2. Competence of team members and technical reviewers



CERTIFICATO DI QUALIFICA QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:

Vinay SINGH

We declare that Mr/Mrs/Ms:

è qualificato come¹:
is qualified as:

CDM-TEC, CDM-VAL, CDM-VER,
REG-EXP²

per le seguenti aree tecniche:
for the following technical areas:

1.2. 14.1

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1
14.1	Forestry	14

in accordo alle istruzioni della Unità Certification Innovation and Sustainability.
in accordance with the instructions of the Certification Innovation and Sustainability Unit.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	04/05/2020	First Issue

Il Resp. CEINS
Head of CEINS

¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

CDM: Clean Development Mechanism
VCS: Verified Carbon Standard
GS: Gold Standard
SCS: Social Carbon Standard
JI: Joint Implementation

² India, Kenya, Uganda, Sri Lanka, Thailand, Mauritius.

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports



CERTIFICATO DI QUALIFICA
QUALIFICATION CERTIFICATE

Si attesta che il sig./sig.ra:
We declare that Mr/Mrs/Ms:

Mathew Vijay

è qualificato come¹:
is qualified as:

CDM -TEC, -VAL, -VER, -TL
ITRP

per le seguenti aree tecniche:
for the following technical areas:

1.2

AREE TECNICHE TECHNICAL AREAS	DESCRIZIONE DELL'AREA TECNICA TECHNICAL AREA DESCRIPTION	SCOPO SETTORIALE SECTORAL SCOPE
1.2	Renewables	1

in accordo alle istruzioni del Settore Sostenibilità & Cambiamenti Climatici.
in accordance with the instructions of the Sustainability & Climate Change Sector.

REVISIONE REVISION	DATA DATE	MOTIVAZIONI PER LA REVISIONE REASON FOR THE REVISION
0	02/08/2012	-
4	18/04/2017	Update qualification as Verifier and ITRP
5	15/11/2019	Update qualification with "Sampling and surveys for CDM PAs and PoAs"

Il Resp. CEINS
Head of CEINS

¹ Legend:

VAL: Validator
VER: Verifier
TEC: Technical Expert
TL: Team Leader
FIN-EXP: Financial Expert
DET: Determiner

CDM: Clean Development Mechanism
VCS: Verified Carbon Standard
GS: Gold Standard
SCS: SocialCarbon Standard
JI: Joint Implementation

RINA Services S.p.A. è accreditato da UNFCCC, quale Entità Operativa Designata (DOE), per condurre la Validazione e la Verifica di Progetti CDM, da VCSA per condurre la Validazione e la Verifica di Progetti VCS, da GS Foundation, per condurre la Validazione e la Verifica di Progetti GS, da Ecologica Institute per condurre la Validazione e la Verifica di rapporti SCS

RINA Services S.p.A. is accredited by the UNFCCC, as Designated Operational Entity (DOE), to carry out Validation and Verification of CDM Projects, by the VCSA, to carry out Validation and Verification of VCS Projects, by the GS Foundation, to carry out Validation and Verification of GS Projects and by the Ecologica Institute, to carry out Validation and Verification of SCS Reports

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	Vaayu (India) Power Corporation Private Limited	GS Monitoring report for project activity 'Vaayu India Wind Power Project in Andhra Pradesh' in India for the period 03/09/2016 to 01/08/2018	Version 01.0 of 12/09/2020, Version 02.0 of 28/09/2020, Version 03.0 of 12/11/2020	PP
2	Vaayu (India) Power Corporation Private Limited	Emission reduction calculation spreadsheet (ER (GS4603) ver-1 (03Sep2016-01Aug2018).xls & ER (GS4603) ver-02 (03Sep2016-01Aug2018).xls)	Version 01 of 12/09/2020, Version 02.0 of 28/09/2020, Version 03.0 of 12/11/2020	PP
3	Vaayu (India) Power Corporation Private Limited	CDM-PDD for project activity "Vaayu India Wind Power Project in Andhra Pradesh" in India CDM MR & ER sheet for sixth monitoring period	Version 05, dated 22/05/2012 MR Version 1.2, dated 20/12/2019, ER sheet final version 1.1	PP
4	UNFCCC	ACM0002 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"	Version 11	Others
5	Gold Standard	Transition Annex	Version 02.2	Others
6	Gold Standard	Project GS 4603: Vaayu India Wind Power Project in Andhra Pradesh	https://registry.goldstandard.org/projects/details/823	Others
7	Earthood Services Private Limited	CDM verification report of "Vaayu India Wind Power Project in Andhra Pradesh" for the period 03/09/2016 to 01/01/2019	Version 02 of 31/01/2020	Others
8	Gold Standard	GS4GG Monitoring report form	Version 01, June 2017	Others
9	Gold Standard	Gold Standard rule update on COVID 19: Interim measures requirements	24/07/2020	Others
10	Central Electricity Authority	Ministry of Power, Government of India Notification No. 502/70/CEA/DP&D dated 17/03/2006	dated 17/03/2006	Others
11	CDM Executive Board	Clean Development Mechanism Project Cycle Procedure	Version 02.0 of 29/11/2018	Others
12	CDM Executive Board	Clean Development Mechanism Project Standard	Version 02.0 of 29/11/2018	Others
13	CDM Executive Board	Clean Development Mechanism Validation and Verification Standard for Project activities	Version 02.0 of 29/11/2018	Others
14	UNFCCC	Guideline: Application of materiality in verifications	Version 02 of 20/02/2015	Others
15	SGS	Validation report for post-registration changes for project activity Vaayu India Wind Power Project in Andhra Pradesh	Issue 06 dated 25/05/2012	PP
16	APCPDCL	Monthly electricity generation reports (JMRs)- Monthly certified statement of billing parameters issued by state utility showing export and import from		PP

		03/09/2016 to 01/08/2018		
17	Vaayu (India) Power Corporation Private Limited	Monthly invoices raised to state utility for net electricity export from 03/09/2016 to 01/08/2018		PP
18	Vaayu (India) Power Corporation Private Limited	Grievance register maintained at site w.r.t. project activity.		PP
19	Vaayu (India) Power Corporation Private Limited	TABLAB year end impact report by iDream Education.		PP
20	Vaayu (India) Power Corporation Private Limited	Test reports/calibration reports of all the energy meters of the registered project activity for the current monitoring period.		PP
21	Gold Standard	Gold Standard for the Global Goals Principles & Requirements	Version 1.1 of March 2018	Publicly available
22	Gold Standard	Gold Standard validation and verification body Requirements	Version 1.0 of 14/08/2017	Publicly available
23	Vaayu (India) Power Corporation Private Limited	Records on safety training for the monitoring period i.e. for year 2016, year 2017 and year 2018		PP
24	Vaayu (India) Power Corporation Private Limited	Employee attendance sheet for the monitoring period i.e. year 2016, year 2017 and year 2018		PP
25	Vaayu (India) Power Corporation Private Limited	Crescent rural development society (NGO), fund utilization certificates		PP
26	Vaayu (India) Power Corporation Private Limited	Corporate social responsibility reports for the year 2016, 2017 and 2018		PP
27	UNFCCC	Project CDM 4677: Vaayu India Wind Power Project in Andhra Pradesh	https://cdm.unfccc.int/Projects/DB/DNV-CUK1302613748.83/view	Others
28	APCPDCL	Monthly transmission loss calculation sheets		PP
29	WWIL	List of employees w.r.t. project Vaayu India Wind Power Project in Andhra Pradesh		PP

Appendix 4. Clarification requests, corrective action requests and forward action requests

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

FAR ID	Xx	Section no.	E.2	Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

Table 2. CR from this verification

CR ID	01	Section no.	D.2	Date: 26/09/2020
Description of CR				
<i>PP has submitted the documents/evidence w.r.t. the sustainability monitoring parameters. However, the evidence w.r.t. number of Health and safety trainings for qualitatively better work opportunities during Operation and Maintenance; is not fully covering the entire monitoring report.</i>				
Project participant response				Date: 30/09/2020
<i>PP would hereby like to confirm that health & safety trainings are being conducted for employees on regular basis. As per GS documentation requirement, a minimum of one training shall be conducted each year. However, there were more numbers of trainings conducted each year and for the purpose of reporting 2 trainings for each year have been reported and supporting documents are being submitted to DOE.</i>				
Documentation provided by project participant				
<i>Training records for the period 2016 to 2018.</i>				
DOE assessment				Date: 05/10/2020
Justification provided by PP is acceptable. The supportive document is now covering the requirement. Hence, CR 01 is closed.				

CR ID	02	Section no.	D.2	Date: 26/09/2020
Description of CR				
<i>PP has submitted the translated grievance register in English. However, PP is requested to provide the copy of the original grievance register in local language.</i>				
Project participant response				Date: 30/09/2020
<i>PP hereby confirms that the English translated comments and responses have been taken from original grievance register which is kept at the project site office as a continued grievance mechanism as per GS registered document. PP is submitting the original grievance register which contains the comments in local languages, followed by English translation in a separate document.</i>				
<i>PP would like to confirm that the comments received from local stakeholders were registered in the Grievance Register book with details of the Person, date of comment and response or actions taken by PP against such comments. However, as can be verified from the original register there was no negative comment or any particular grievance against the ongoing activities. The comments received are more towards suggestions/recommendations which can help adding more social activities in the region. Thus, all social activities added during the current monitoring period are the measures/real actions taken up by PP.</i>				
Documentation provided by project participant				
<i>Copies of the Original Grievance Register. CSR reports from third party (NGO partner).</i>				

DOE assessment	Date: 05/10/2020
Justification provided by PP is acceptable. The supportive document is now covering the requirement. Hence, CR 01 is closed.	

Table 3. CAR from this verification

CAR ID	01	Section no.	C	Date: 26/09/2020
Description of CAR				
<i>PP has provided the details of the meters installed at project site (33 kV). However, the details of meters installed at 132/33 kV WWIL substation (Bulk meters) is not provided. Further, the calibration due date mentioned in MR for phase 7 is not inline with the calibration frequency mentioned in GS transition annex.</i>				
Project participant response				Date: 30/09/2020
<i>PP hereby confirms that meter details related to Substation bulk meters are now included under the section C of the MR. All the meters are having calibration frequency as once in 5 years. The information for the phase 7 has been corrected now. The revised MR is submitted to DOE.</i>				
Documentation provided by project participant				
<i>Revised Monitoring Report, version 02, dated 28 Sep 2020.</i>				
DOE assessment				Date: 05/10/2020
PP has made necessary correction. Now the revised monitoring report version 02 is in line with the requirements. Hence CAR 01 is now closed.				

CAR ID	02	Section no.	D.2	Date: 26/09/2020
Description of CAR				
<i>PP has mentioned the total number of Health and safety trainings for qualitatively better work opportunities during Operation and Maintenance w.r.t. SDG 8.5.2. However, the annual breakup of trainings are not mentioned in section D.2. of the Monitoring report.</i>				
Project participant response				Date: 30/09/2020
<i>PP has revised the section D.2 of the monitoring report and required breakup of training records across the years are now included. Revised Monitoring report has been submitted to DOE.</i>				
Documentation provided by project participant				
<i>Revised Monitoring Report, version 02, dated 28 Sep 2020.</i>				
DOE assessment				Date: 05/10/2020
PP has made necessary correction. PP has now included the required breakup of training records across the year. The revised monitoring report version 02 is in line with the requirements. Hence CAR 02 is now closed.				

Table 4. FAR from this verification

FAR ID	Xx	Section No.		Date: DD/MM/YYYY
Description of FAR				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				
DOE assessment				Date: DD/MM/YYYY

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
01.0	10/06/2016	Initial publication.