



“RENEWABLE SOLAR POWER PROJECT BY RENEW SOLAR POWER PRIVATE LIMITED”



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Summary:

LGAI Technological Center, S.A.(Applus+ Certification) has performed the verification of the project “Renewable Solar Power Project by ReNew Solar Power Private Limited.” VCS ID 1851, against VCS Standard Version 4.1. The scope of verification includes confirming the implementation of the monitoring plan of the registered VCS PD (version 02) dated 02/02/2019 and the application of the monitoring methodology “Grid-connected electricity generation from renewable sources”, ACM0002, Version 19.

The verification is consisted of three phases: i) desk review of the project; ii) remote visit and interviews with project stakeholders; iii) resolution of outstanding issues and the issuance of the final verification report and opinion. The overall verification, from Contract Review to Verification Report & Opinion, was conducted following Applus+ certification internal quality procedures.

During the verification process 04 CARs, 01 CL and 00 FARs were raised. All the findings have been closed satisfactorily and the same has been discussed in Appendix 4.

Applus+ certification confirms that the monitoring system is in place and the emission reductions are calculated without material misstatements. The emission reductions from the project activity “Renewable Solar Power Project by ReNew Solar Power Private Limited” in India during the period 26-May-2021 to 31-December-2021(including both days) amount to 944,387tonnes of CO₂e.

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1 INTRODUCTION

1.1 Objective

Renew Solar Power Private Limited has contracted LGAI Technological Center, S.A. (Applus+ Certification) to perform the periodic verification of the 'Renewable Solar Power Project by ReNew Solar Power Private Limited' in India (hereafter called project). This project has already been registered as a VCS project (VCS ID 1851). The objective of this verification is a thorough and independent assessment of registered project activities against the applicable VCS requirement by the VVB. The verification process shall determine whether the proposed project activity complies with the requirements of latest VCS guidelines, applicability conditions of the selected methodology, relevant host country regulations and guidance issued by the VCS Board.

1.2 Scope and Criteria

The scope of verification is to assess the claims and assumptions made in the VCS monitoring report (MR) against the VCS criteria, including but not limited to, VCS standard, applied methodology and other relevant rules and requirements established for VCS project activities. The verification of this project was based on the registered project description & monitoring report /4/ and supporting documents submitted by the project proponent to the verification team. The documents were reviewed against the following guidance and protocols:

VCS standard Version 4.1, Issued: 19-September-2019; Updated: 22-April-2021 /16/

Approved baseline and monitoring methodology ACM0002 ver. 12.1.0 "Consolidated baseline methodology for grid-connected electricity generation from renewable sources"/14/

VCS Program Guide, Version 4.0, dated 19-September-2019 /17/

CDM VVS for project activities version 03.0 /22/

CDM PS for project activities version 03.0 /21/

The Verification is not meant to provide any consulting towards the project participants. However, stated requests for clarification and/or correction actions request may have provided inputs for improvement of the project design.

1.3 Level of Assurance

The verification team verified the complete monitoring data for all the parameters of the monitoring plan and confirms that the reported emission reductions are free from any type of material errors. Therefore, Applus+ certification confirms that the verification is conducted with reasonable level of assurance.

1.4 Summary Description of the Project

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

During the time of registration the total installed capacity of the project was 927 MW solar power project in Gujarat, Karnataka, Madhya Pradesh, Rajasthan and Telangana states of India.

The project shall result in replacing anthropogenic emissions of greenhouse gases (GHG's) estimated to be approximately 1,767,281 tCO₂e per year, thereon displacing 1,865,216 MWh/year amount of electricity from the grid over the 10 years first crediting period. The emission reductions from the project activity "Renewable Solar Power Project by ReNew Solar Power Private Limited" in India during the period 26-May-2021 to 31-December-2021 (including both days) amount to 944,387 tonnes of CO₂e.

The details of the project are given below:

Name of SPVs ¹	Capacity in MW	Date of Commissioning	Connection with Grid	State
Bhumi Prakash Private Limited	20 MW	26.09.2017	Indian Grid	Karnataka
Renew Wind Energy (MP Four) Private Limited	20 MW	28.04.2017		
Renew Agni Power Private Limited	20 MW	31.03.2017		
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	27.03.2017		

¹ The SPV names mentioned in the table are in accordance with their respective Commissioning Certificates.

Tarun Kiran Bhoomi Private Limited	20 MW	31.03.2017		
Renew Wind Energy (Karnataka 4) Private Limited	20 MW	31.03.2017		
Renew Wind Energy (Budh 3) Private Limited	20 MW	16.03.2018		
Renew Wind Energy (Budh 3) Private Ltd	20 MW	09.03.2018		
Renew Wind Energy (Budh 3) Private Limited	20 MW	30.12.2017		
Renew Wind Energy (Maharashtra) Private Limited	20 MW	13.10.2017		
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	07.12.2017		
Renew Wind Energy (MP Three) Private Limited	20 MW	11.11.2017		
Renew Saur Urja Private Limited	50 MW	26.05.2017		
Renew Wind Energy (TN2) Private Limited	50 MW	14.12.2017		
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	31.03.2017		Gujarat
Renew Clean Energy Private Limited	51 MW	01.10.2017		Madhya Pradesh
Aalok Solarfarms Limited	10 MW	06.11.2017		Rajasthan
Abha Solarfarms Limited	10 MW	17.10.2017		
Heramba Renewbles Limited	20 MW	10 MW on 17.10.2017		
		10 MW on 28.10.2017		

Shreyas Solarfarms Limited	20 MW	17.11.2017	Telangana	
ReNew Solar Energy (Telangana) Private Limited	143 MW	44 MW on 28.04.2017		
		17.6 MW on 16.05.2017		
		44 MW on 22.06.2017		
		15.4 MW on 03.07.2017		
		22 MW on 12.07.2017		
Renew Mega Solar Power Private Limited	48 MW	24 MW on 13.02.2017		
		24 MW on 21.02.2017		
Renew Saur Shakti Private Limited	30 MW	8 MW on 14.02.2017		
		10 MW on 04.03.2017		
		6 MW on 30.03.2017		
		4.5 MW on 30.05.2017		
		1.5 Mw on 11.06.2017		
Renew Saur Shakti Private Limited	65 MW	58 MW on 29.05.2017		
		7 MW on 07.07.2017		
Renew Wind Energy (TN2) Private Limited	100 MW	01.11.2017		
Prathamesh Solarfarms Limited	50 MW	20.09.2017		
Total	927 MW			

This information was verified during remote assessment and found to be in line with the details provided in the registered PD /01/.

The SOLAR MODULEs have been commissioned between 2017 to 2018. The same was verified against the registered VCS PD/01/ and commissioning certificates/11/.The emission reductions from the project activity during the period 26-May-2021 to 31-December-2021(including both days) amount to 944,387 tonnes of CO₂e.

2 VERIFICATION PROCESS

The registered VCS project is undergoing periodic verification under VCS, the approach adopted to ensure the quality of emission reductions is described in the following sections.

2.1 Method and Criteria

Verification was conducted using Applus+ Certification procedures in line with the requirements CDM validation and verification standard for project activities, Version 03.0 for the project activity and “VCS standard version 4.1 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. The project activity does not fall under category “grouped projects”, hence any sampling methods not to be employed by the validation/verification body for the verification of GHG emission reductions or removals generated by the project.

Applus+ certification assessed and determined whether the proposed implementation and operation of the project activity, and the steps taken to report emission reductions comply with the criteria and relevant guidance provided by the VCS Board. The validation/verification process consist of the following three phases;

- A desk review of the VCS PD and VCS MR
- Remote visit and follow up interviews with project stakeholders
- The resolution of outstanding issues and issuance of final report and opinion

2.2 Document Review

The verification is performed primarily as a document review of the approved revised VCS PD, previous MR and Verification report and associated documents as stated in detail in appendix 1 of this document. The assessment is performed by a verification team using a protocol. The cross checks between information provided in the Monitoring report, VCS PD and information from sources other than those used, if available, the team’s sectoral or local expertise and, if necessary, independent background investigations.

2.3 Interviews

Due to the current situation with the global COVID-19 pandemic scenario and country wide lock down in most of countries across the globe, an on-site inspection has not been performed by the assessment team. However, the representatives of the PPs and onsite staff of PP were interviewed online via Skype/WhatsApp on 24-January -2022 i.e. personnel responsible for monitoring of the project activity, data collection and management, and QA/QC procedure. The details of the people interviewed are mentioned in the table below:

S N	Name	Organization
1.	Mr. Aditya Sharma	Associate Manager,PP Representative//ReNew Solar Power Private Limited
2.	Mr. Chinmay Singh	Senior Manger,PP Representative//ReNew Solar Power Private Limited
3.	Mr. Satish Nikam	Senior Manger (Plant),PP Representative//ReNew Solar Power Private Limited
4.	Ms. Sushma Ramindla	Advisor/Consultant// EKI Energy Services Ltd.
5.	Mr. Barun Sharma	Advisor/Consultant// EKI Energy Services Ltd.

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

2.4 Site Inspections

As discussed in the above section, physical site inspection is not done for the current verification. However, to achieve a reasonable level of assurance, the assessment team has followed the alternative means to substantiate the verification criteria as described in the below table –

Assessment Criteria	Means of verification/source documents	Assessment opinion
Description of project activity	i. Commissioning certificates /9/ ii. PPA signed with SEB./10/ iii. Latest VCS verification report /2.0/. iv. Interview with PP representatives on 24-	The information's with reference to project capacity, technology, plant equipment's and commissioning dates as provided in section 1.1 of

Assessment Criteria	Means of verification/source documents	Assessment opinion
	January-2022	MR are found consistent with the documents.
Compliance of the project implementation with the registered project design document	i. Monthly JMRs signed by SEB /8/ ii. Geographical co-ordinates (Location of Project activity) verified through Google Map² as well as sharing of live location from PP representative onsite. iii. Latest VCS verification report /2.1/. iv. PPA signed with SEB /10/ v. Interview with PP representatives on 24-January-2022 vi. Latest photographs of major project equipment's installed at site (i.e. Solar PV, energy meters, weir intake, penstock, tailrace etc.)/18/	Verified documents indicated the following information: • Serial number of energy meters (Main and Check) • Capacity of project • Name of project participant (Ownership of the project activity) Location of power house is verified through Google Map. Daily generation records are verified on sample basis to check the operational status of project activity. Grid connectivity of the project is confirmed through the PPA. All the information's regarding the project implementation as discuss above are further verified through previous VCS verification report/2.1/ and found consistent.
Compliance of the registered monitoring plan with applied methodologies and standardized baselines	i. Interview with PP representatives on 24-January-2022 ii. PPA signed with SEB /10/ iii. Monthly JMRs signed by SEB /8/ iv. Invoices raised by project developer to SEB/7/ v. Photograph of all the solar modules/WTG, energy meters installed at site and screen shots of online	The organizational structure, responsibilities and competencies of the personnel confirmed through interview with PP representatives. Frequency of monitoring of parameters listed under approved monitoring plan is verified through JMRs /Invoices. The methods used for measuring, recording,

²<https://www.gps-coordinates.net/>

Assessment Criteria	Means of verification/source documents	Assessment opinion
	monitoring system/18/	storing, aggregating, and reporting the data on monitored parameters are verified through PPA and interactions with site personnel. Procedure for data uncertainty, emergency preparedness, roles and responsibility, operational and management structure are mentioned in the MR is confirmed through interview with PP representatives and found satisfactory.
Compliance with the calibration frequency requirements for measuring instruments	i. Calibration certificates of energy meters/6/ ii. Monthly JMRs signed by SEB /8/ iii. PPA signed with SEB/10/	Calibration frequency and energy meter specifications (Sr.No., make, accuracy class) is verified through calibration certificates, photographs of energy meters and further verified through monthly JMRs and found consistent. Responsibility of calibration and maintenance of energy meters is solely under control of SEB; this is verified through the PPA.
Assessment of data and calculation of emission reductions or net removals	i. Monthly JMRs signed by SEB /8/ ii. Invoices raised by project developer to SEB/7/	Monthly values of monitoring parameters used in ER calculation are verified through JMRs and cross verified with the invoices. Methods, formulae and emission factor for calculating baseline emissions have been followed are in accordance with the applied methodology /14/.

It is noteworthy that no sampling plan for verification is applied as 100% data is verified for the current monitoring period. Most of the reference document referred by the assessment team (above table) are either issued /endorsed by grid utility (SEB) Indian Grid, a government agency, hence is deemed authentic.

The assessment team has also used documents such as validation report/2.2/ available publicly. Furthermore, the project activity already verified under VCS previously and currently undergoing periodic VCS verification. Hence, based on the information's available through approved documents (VCS verifications), it can be confirmed that project is implemented and being operated as described in the registered PD/1.1/.

The assessment team has verified sufficient appropriate audit evidences, to reduce audit risk to an acceptably low level as requisite to achieve reasonable level of assurance for the current verification.

2.5 Resolution of Findings

The objective of this step is to identify, discuss and conclude on the issues related to the monitoring, implementation and operations of the registered project activity that could impair the capacity of the registered project activity to achieve emission reductions or influence the monitoring and reporting of emission reductions. This is done based on the desk review and remote assessment. The verification team prepares and/or updates a verification protocol (internal document) that records the conformities and non-conformities, which may be of following types;

CAR (Corrective Action Request) is raised if one of the following occurs:

- Non-compliance with the monitoring plan, the methodology or the standardized baseline are found in monitoring and reporting and has not been sufficiently documented by the project participants, or if the evidence provided to prove conformity is insufficient;
- Modifications to the implementation, operation and monitoring of the registered project activity has not been sufficiently documented by the project participants;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impact the quantity of emission reductions;
- Issues identified in a FAR during validation to be verified during verification or previous verification(s) have not been resolved by the project participants.

Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. All CARs and CLs raised by the Applus+ certification during verification shall be resolved prior to submitting a request for issuance.

FAR (Forward Action Request) is raised during verification if the monitoring and reporting require attention and/or adjustment for the next verification period.

All the findings that are raised and communicated to project participant during the verification are included under Appendix 4. The section also includes the response, if provided, by the project participants and an assessment by the verification team if it was closed out or otherwise.

2.5.1 Forward Action Requests

The project activity is undergoing periodic verification under VCS; there were no FARs raised during the validation or previous verification/2.1/.Also during the current verification no FAR is raised.

2.6 Eligibility for Validation Activities

Not applicable, as Applus+ holds the accreditation to perform validation activities in this Sectoral Scope.

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project activity is registered under the VCS only (VCS Project ID 1851). The project proponent has provided a self-declaration in this regard which confirms that project proponent will not claim Emission reductions for current monitoring period **26-May-2021 to 31-December-2021(including both days)** under any other GHG program except VCS, hence accepted by the assessment team.

Audit team checked the REC Mechanism database of India and found that the project activity is not accredited / registered under REC mechanism. Further, declaration for the same is checked and found correct by the assessment team. Also assessment team checked the following registries to confirm the same. The details of the registries checked are as follows:

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

Rejection by other GHG programs

VVB has crossed check the same through other GHG interfaces and found consistent. A declaration has been submitted by PP to VVB confirming the same. Thus, this was further confirmed through a declaration/14/ submitted by the PP and hence accepted by the assessment team.

The details of the registries checked are as follows:

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

The Project has no intend to generate any other form of GHG-related environmental credit for GHG emission reductions or removals claimed under the VCS Program. Renewable energy certificates are available for trading in the host country However, the same is not availed by the Project Proponent. The undertaking regarding the same is submitted by the PP which is acceptable to the assessment team and assessment team also checked the REC web site (<https://recregistryindia.nic.in/>) and found the declaration/14/ to be correct.

3.2 Methodology Deviations

There is no methodology deviation identified since project registration and also during the current monitoring period.

3.3 Project Description Deviations

For the SPV- Renew Wind Energy (TN2) Private Limited, 50 MW Pavagada site, the source of data for the generation data was Form-B and the same has been considered as the source of generation data till Jan-2020. From Jan-2020 onwards, REA statements are being issued. Hence, the generation data from Jan-2020 onwards has been taken from the REA statements. The change in source of data for the generation is as per the requirement of State electricity authority and PP has no role to play in it. Therefore, PP applied for deviation from the source of data for generation from the registered PD.

The above mentioned deviation was approved during the previous verification and the same is being followed during the current verification period. It is to be noted that, due to this deviation, there is no any impact on the applicability of the methodology, additionality or the baseline scenario of the project activity.

This deviation is of permanent nature (the change in source of data generation) and does not have any impact on the project applicability, baseline scenario and additionality.

As the deviation of the project activity does not have impact on scale & methodology of the project activity, additionality of the project activity with change in source of the data as per registered PD/01/ and will not lead overestimation of ER value, hence deviation is accepted by the audit team.

3.4 Grouped Project

This is not a grouped project.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

During the onsite audit with PP representative, it was concluded that the project is implemented as per the requirement of the registered VCS PD and approved monitoring plan. During the current monitoring period, it was observed through breakdown log sheet records onsite that no unforeseen incident/event evolved which can impact the operation of the project activity. The project underwent continuous operation and only scheduled maintenance as per the manufacturer's specification which is acceptable to the assessment team. Moreover, there is no unforeseen incident which can affect the applicability of the methodology and thus the same is acceptable to the assessment team.

Project location is confirmed by the assessment team through Google software. Moreover, assessment team confirm that the latitudes and longitudes as mentioned in the registered PDD is incorrect. The solar modulewise latitudes and longitudes are confirmed below:

Name of SPVs	Capacity (MW)	Latitude	Longitude
Bhumi Prakash Private Limited	20 MW	16.3° N	76.8° E
Renew Wind Energy (MP Four) Private Limited	20 MW	17.4° N	77.4° E
Renew Agni Power Private Limited	20 MW	15.5° N	76.9° E
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	18° 0'5.81"N	77°18'32.57"E
Tarun Kiran Bhoomi Private Limited	20 MW	17.4° N	76.7° E

Renew Wind Energy (Karnataka 4) Private Limited	20 MW	17.7° N	77.3° E
Renew Wind Energy (Budh 3) Private Limited	20 MW	18°11'47.91"N	77°26'46.34"E
Renew Wind Energy (Budh 3) Private Limited	20 MW	17.75° N	77.35° E
Renew Wind Energy (Budh 3) Private Limited	20 MW	16.6° N	77.0°E
Renew Wind Energy (Maharashtra) Private Limited	20 MW	16.6° N	77.3°E
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	13.2°N	76.8°E
Renew Wind Energy (MP Three) Private Limited	20 MW	14.3° N	75.6° E
Renew Saur Urja Private Limited	50 MW	15°53'53" N	76°33'26" E
Renew Wind Energy (TN2) Private Limited	50 MW	14.237 N	77.486 E
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	23°54'56.45" N	71°12'4.79" E
Renew Clean Energy Private Limited	51 MW	24.03117°N	76.667943°E
AalokSolarfarms Limited	10 MW	27.4° N	72.4° E
AbhaSolarfarms Limited	10 MW	27.4° N	72.4° E
HerambaRenewbles Limited	20 MW	27.4° N	72.1° E
ShreyasSolarfarms Limited	20 MW	27.3° N	71.9° E
ReNew Solar Energy (Telangana) Private Limited	143 MW	N 18.6°	E 78.3°
Renew Mega Solar Power Pvt Limited	48 MW	N 18.985290°	E 79.446397°
Renew Saur Shakti Private Limited	30 MW	18.1° N	79.4° E
Renew Saur Shakti Private Limited	65 MW	17° 57.951' N	78° 03.968' E
Renew Wind Energy (TN2) Private Limited	100 MW	16.6°N	77.9°E
PrathameshSolarfarms Limited	50 MW	16°25'12" N	78°4'40.80" E

Start date of the project activity is the earliest date of interconnection with the grid i.e.13-February-2017 which is the date of commissioning of 24 MW solar project activity by Renew Mega Solar Power Private Limited. Assessment team checked the commissioning certificate and confirmed that the dates of Commission for the solar modules are correct. Assessment team also conform during the remote site visit that there is no change in project design except deviation requested and the project is implemented as per the description provided in the registered PDD. Commissioning dates of solar modules are given below:

Name of SPVs	Capacity in MW	Date of Commissioning	Connection with Grid	State	Usage
Bhumi Prakash Private Limited	20 MW	26.09.2017	Indian Grid	Karnataka	Sale to State Discom
Renew Wind Energy (MP Four) Private Limited	20 MW	28.04.2017			Sale to State Discom
Renew Agni Power Private Limited	20 MW	31.03.2017			Sale to State Discom
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	27.03.2017			Sale to State Discom
Tarun Kiran Bhoomi Private Limited	20 MW	31.03.2017			Sale to State Discom
Renew Wind Energy (Karnataka 4) Private Limited	20 MW	31.03.2017			Sale to State Discom
Renew Wind Energy (Budh 3) Private Limited	20 MW	16.03.2018			Sale to 3rd Party
Renew Wind Energy (Budh 3) Private Ltd	20 MW	09.03.2018			Sale to 3rd Party
Renew Wind Energy (Budh 3) Private Limited	20 MW	30.12.2017			Sale to 3rd Party
Renew Wind Energy (Maharashtra) Private Limited	20 MW	13.10.2017			Sale to State Discom
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	07.12.2017			Sale to State Discom
Renew Wind Energy (MP Three) Private Limited	20 MW	11.11.2017			Sale to State Discom
Renew Saur Urja Private Limited	50 MW	26.05.2017			Sale to 3rd Party

Renew Wind Energy (TN2) Private Limited	50 MW	14.12.2017			Sale to NTPC Limited
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	31.03.2017		Gujarat	Sale to SECI Limited
Renew Clean Energy Private Limited	51 MW	01.10.2017		Madhya Pradesh	Sale to State Discom
Aalok Solarfarms Limited	10 MW	06.11.2017		Rajasthan	Sale to NTPC Limited
Abha Solarfarms Limited	10 MW	17.10.2017			Sale to NTPC Limited
Heramba Renewables Limited	20 MW	10 MW on 17.10.2017 10 MW on 28.10.2017			Sale to NTPC Limited
Shreyas Solarfarms Limited	20 MW	17.11.2017			Sale to NTPC Limited
ReNew Solar Energy (Telangana) Private Limited	143 MW	44 MW on 28.04.2017		Telangana	Sale to State Discom
		17.6 MW on 16.05.2017			
		44 MW on 22.06.2017			
		15.4 MW on 03.07.2017			
		22 MW on 12.07.2017			
Renew Mega Solar Power Private Limited	48 MW	24 MW on 13.02.2017			Sale to State Discom
		24 MW on 21.02.2017			
Renew Saur Shakti Private Limited	30 MW	8 MW on 14.02.2017			Sale to State Discom
		10 MW on 04.03.2017			
		6 MW on 30.03.2017			
		4.5 MW on 30.05.2017			
		1.5 Mw on 11.06.2017			
Renew Saur Shakti Private Limited	65 MW	58 MW on 29.05.2017			Sale to State Discom
		7 MW on 07.07.2017			
Renew Wind Energy (TN2) Private Limited	100 MW	01.11.2017			Sale to NTPC Limited

Prathamesh Solarfarms Limited	50 MW	20.09.2017			Sale to State Discom
Total	927 MW				

The technical parameters have been verified with the name plates as well as with the technical specifications of solar modules and also cross checked from the technical manual of the Manufactures. Assessment team confirms that the technical parameters are consistent with the registered VCS PD. The major technical specifications of the solar module are as follows:

The technical specification for 20 MW solar project by Bhumi Prakash Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp No. of Modules- 21, 21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (MP Four) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp No. of Modules- 21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Agni Power Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 21, 21, 21
2	Number of Inverters & Capacity	465 Inverters Capacity- 0.043 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Karnataka 3) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
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1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	465 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Tarun Kiran Bhoomi Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp No. of Modules- 21,21
2	Number of Inverters & Capacity	8 Inverters Capacity- 2.5 MW
3	Number of Transformers & Capacity	4 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Karnataka 4) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp & 325 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Budh 3) Private Limited at Eklara site in Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp & 330 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	8 Inverters Capacity- 2.52 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Budh 3) Private Limited at Nirna site in Karnataka.

Sl. No.	Technical details of the equipment	Description
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1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp & 330 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	8 Inverters Capacity- 2.52 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Budh 3) Private Limited at Wadagere site in Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp & 330 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	30 Inverters Capacity- 0.68 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Maharashtra) Private Limited at Karnataka

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp& 325Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	30 Inverters Capacity- 0.68 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (Rajasthan Four) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp& 325Wp No. of Modules- 21,21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 16/20 MVA

The technical specification for 20 MW solar project by Renew Wind Energy (MP Three) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp& 330Wp

		No. of Modules- 21,21,21
2	Number of Inverters & Capacity	20 Inverters Capacity- 1 MW
3	Number of Transformers & Capacity	5 transformer of 4 MVA 1 transformer of 15/20 MVA

The technical specification for 50 MW solar project by Renew Saur Urja Private Limited at Karnataka

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp& 325Wp No. of Modules- 21,42,21
2	Number of Inverters & Capacity	23 Inverters of 1 MW 24 Inverters of 1.125 MW
3	Number of Transformers & Capacity	6 transformer of 4.5 MVA 5 transformer of 4 MVA 1 transformer of 3 MVA 2 transformers of 20/25 MVA

The technical specification for 50 MW solar project by Renew Wind Energy (TN2) Private Limited at Karnataka.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp, 330 Wp, 340 Wp& 345 Wp No. of Modules- 19,21,21,21,21
2	Number of Inverters & Capacity	20 Inverters of 2.5 MW
3	Number of Transformers & Capacity	10 transformers of 5 MVA 2 transformers of 20/25 MVA

The technical specification for 40 MW solar project by Renew Solar Energy (Karnataka Two) Private Limited at Gujarat.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp& 325 Wp No. of Modules- 20,20,20
2	Number of Inverters & Capacity	40 Inverters of 1 MW
3	Number of Transformers & Capacity	10 transformers of 4 MVA 2 transformers of 16/20 MVA

The technical specification for 51 MW solar project by Renew Clean Energy Private Limited at Madhya Pradesh.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 117.5 Wp No. of Modules- 32
2	Number of Inverters & Capacity	6 Inverters of 2.5 MW

		12 Inverters of 3 MW
3	Number of Transformers & Capacity	6 transformers of 6 MVA 3 transformers of 5 MVA 2 transformers of 25/30 MVA

The technical specification for 10 MW solar project by Aalok Solarfarms Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	5 transformers of 2 MVA

The technical specification for 10 MW solar project by Abha Solarfarms Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	5 transformers of 2 MVA

The technical specification for 20 MW solar project by Heramba Renewbles Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	10 transformers of 2 MVA

The technical specification for 20 MW solar project by Shreyas Solarfarms Limited at Rajasthan.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp No. of Modules- 20
2	Number of Inverters & Capacity	10 Inverters of 1 MW
3	Number of Transformers & Capacity	10 transformers of 2 MVA

The technical specification for 143 MW solar project by ReNew Solar Energy (Telangana) Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 310 Wp, 315 Wp, 320 Wp & 325 Wp No. of Modules- 21,21,21,21
2	Number of Inverters & Capacity	130 Inverters of 1 MW
3	Number of Transformers & Capacity	31 transformers of 4.4 MVA

		3 transformers of 2.2 MVA 3 transformers of 40/50 MVA
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The technical specification for 48 MW solar project by Renew Mega Solar Power Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 310 Wp, 315 Wp& 320 Wp No. of Modules- 21,21,21
2	Number of Inverters & Capacity	48 Inverters of 1 MW
3	Number of Transformers & Capacity	12 transformers of 4 MVA 2 transformers of 25/30 MVA

The technical specification for 30 MW solar project by Renew Saur Shakti Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp No. of Modules- 21
2	Number of Inverters & Capacity	30 Inverters of 1 MW
3	Number of Transformers & Capacity	7 transformers of 4 MVA 1 transformers of 2 MVA 1 transformers of 25/30 MVA

The technical specification for 65 MW solar project by Renew Saur Shakti Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 315 Wp, 320 Wp& 325 Wp No. of Modules- 42,84,42
2	Number of Inverters & Capacity	65 Inverters of 1 MW
3	Number of Transformers & Capacity	16 transformers of 4 MVA 1 transformers of 1 MVA 1 transformers of 25/30 MVA 1 transformers of 40/50 MVA

The technical specification for 100 MW solar project by Renew Wind Energy (TN2) Private Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp, 325 Wp& 330 Wp No. of Modules- 60,60,60
2	Number of Inverters & Capacity	28 Inverters of 2.5 MW 30 Inverters of 1 MW
3	Number of Transformers & Capacity	6 transformers of 4 MVA 3 transformers of 2 MVA 14 transformers of 5 MVA

	2 transformers of 40/50 MVA
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The technical specification for 50 MW solar project by Prathamesh Solar farms Limited at Telangana.

Sl. No.	Technical details of the equipment	Description
1	Modules capacity and No. of Module	Model capacity- 320 Wp& 325 Wp No. of Modules- 20,20
2	Number of Inverters & Capacity	50 Inverters of 1 MW
3	Number of Transformers & Capacity	12 transformers of 4 MVA 2 transformers of 1 MVA

The assessment team confirmed through remote site visit with PP representative that there is no proposed or actual change to the project design during this monitoring period. It was observed that the monitoring plan was implemented as per the registered VCS PD and applied methodology ACM0002, Version 19.0. The organisational role and responsibility as mentioned in the registered VCS PD is followed onsite. Meters are calibrated as per calibration frequency in registered VCS PD. All the emergency preparedness as mentioned in the registered VCS PD is followed onsite and no discrepancies were found regarding the same.

Assessment team concludes the following:

- There is no material discrepancies between project implementation and the project description provided in the registered PD/04/.
- The monitoring plan is implemented completely and monitoring system (i.e., process and schedule for obtaining, recording, compiling and analysing the monitored data and parameters) is appropriate.
- There is no material discrepancies between the actual monitoring system, and the monitoring plan set out in the project description and the applied methodology/08/.
- The GHG emission reductions or removals generated by the project have not included in an emissions trading program or any other mechanism that includes GHG allowance trading/16/.
- The project has not received or sought any other form of environmental credit, or has become eligible to do so since validation or previous verification.
- The project is registered under VCS only.
- The project activity is comply with indicators for sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India as discussed under section 1.11 of MR.

In view of the information's as verified above the assessment team is able to conclude that the project has been implemented as described in the project description.

4.2 Safeguards

4.2.1 No Net Harm

Being bundled renewable solar power generation project there is no negative environmental and socio-economic impacts in fact project activity contributes positively by providing environment friendly power generation leading to sustainable development of the region. Also, the generation of employment supports upliftment of socio-economic status of region. As per the EIA notification dated 14th September 2006, the solar power projects are exempted from environmental clearance. Hence, Environmental impact assessment is not required for this project activity.

The report on “Developmental Impacts and Sustainable Governance Aspects of Renewable Energy Projects” prepared by MNRE dated September 2013 also confirms that solar power project activity operations do not result in direct air pollution, noise pollution. Hence verification team confirms that there are no any significant impacts due to implementation of project activity on air, water, soil quality and ambience are envisaged due to the project activity.

4.2.2 Local Stakeholder Consultation

The Project is already registered with VCS and registered VCS Project Description; sections 6 describe the Local Stakeholder Consultation Process as in-line with VCS requirement.

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

For ongoing communication, the PP has also placed a grievance register onsite where in the stakeholder can put down his/her complain and the same if found genuine will be addressed immediately. However, being renewable solar power generation project there is no feedback/grievance has been reported within this monitoring period verified from the photos provided by the Project participant.

4.3 AFOLU-Specific Safeguards

Not applicable for this project activity.

4.4 Accuracy of GHG Emission Reduction and Removal Calculations

The project monitoring has been carried in accordance with the registered VCS PD/01/ and the monitoring report/04/. The monitoring plan laid in the registered PD is being followed at the site/18/. The assessment team has verified the information flow (from data generation, aggregation, to recording, calculation and reporting for these parameters including the values) in the MR/04/.The emission reductions are purely based on the net electricity generated and exported from the machines. PP has provided all the sufficient data for current monitoring period. The values of the parameter net electricity generation supplied to the grid by each phase used in deriving the GHG emission reduction could be very well correlated between the data sets and ER spreadsheet/05/ provided by PP. the verification of each monitoring parameter has been discussed later in section 4.5.

The calculation method and formulae used in calculating baseline emission is in compliance to the methodology used i.e. ACM0002 Version 19 /09/. Since project activity is a solar power project, leakage emission and project emission has been considered as zero.

4.5 Quality of Evidence to Determine GHG Emission Reductions and Removals

The below tables describe how the parameter, that is to be measured according to the monitoring plan, has been verified to confirm that the actual monitoring complies with the monitoring plan, monitoring data has been thoroughly assessed and that the calibration requirements are met.

For Karnataka Site:

Parameter	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh, $EG_{PJ, y, KA}$ (MWh)	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as: $EG_{PJ, y, KA} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$

		Where, EG_{JMR, project, export, y}=Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y. EG_{JMR, project, import, y}= Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However the parameter EG_{JMR, project, export, y} and EG_{JMR, project, import, y} are calculated using measured values, are continuously monitored, hourly measured and monthly recorded ³ .
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate EG_{JMR, project, export, y} and EG_{JMR, project, import, y} is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the PPA/12/.

	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment's is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is once in 5 years as outlined in the registered PD/01/ is in accordance with the national standards/15/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the measuring equipment's is carried out by an accredited entity.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters is valid for the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately.
	How were the values in the monitoring report verified?	Cumulative value of $EG_{PJ, y, KA}$ for entire monitoring period is reported in the monitoring report/04/, and monthly values in the ER calculation sheet/05/. The monthly values were verified from the credit notes issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was

		verified as 364,361.38MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{PJ, y,KA} were further cross checked with the monthly invoices raised by the PP /07/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Remote assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CAR#4 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the solar modules. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

For Gujarat Site:

Parameter	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh, EG_{PJ, y,GJ} (MWh)
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Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as: $EG_{PJ, y, GJ} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$ Where, $EG_{JMR, project, export, y}$ = Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y. $EG_{JMR, project, import, y}$ = Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However the parameter $EG_{JMR, project, export, y}$ and $EG_{JMR, project, import, y}$ are calculated using measured values, are continuously monitored, hourly measured

		and monthly recorded ⁴ .
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate $EG_{JMR, project, export, y}$ and $EG_{JMR, project, import, y}$ is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the PPA/12/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment's is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is once in 5 years as outlined in the registered PD/01/ is in accordance with the national standards/15/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the measuring equipment's is carried out by an accredited entity.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters is valid for the current monitoring period.

	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately.
	How were the values in the monitoring report verified?	Cumulative value of EG_{Pj, y,Gj} for entire monitoring period is reported in the monitoring report/04/, and monthly values in the ER calculation sheet/05/. The monthly values were verified from the credit notes issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified as 50,385.88MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{Pj, y,Gj} were further cross checked with the monthly invoices raised by the PP /07/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Remote assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.

Findings	CAR#4 was raised and resolved
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the solar modules. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.

For Madhya Pradesh site:

Parameter	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh, $EG_{PJ, y, MP}$ (MWh)							
Means of verification	<table><tr><th>Criteria/Requirements</th><th>Assessment/Observation</th></tr><tr><td>Measuring /Reading /Recording frequency</td><td> The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as: $EG_{PJ, y, MP} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$ Where, $EG_{JMR, project, export, y}$=Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y. $EG_{JMR, project, import, y}$= Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y. </td></tr><tr><td>Is measuring and reporting frequency in accordance with the monitoring plan and</td><td>Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered</td></tr></table>	Criteria/Requirements	Assessment/Observation	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as: $EG_{PJ, y, MP} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$ Where, $EG_{JMR, project, export, y}$=Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y. $EG_{JMR, project, import, y}$= Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y.	Is measuring and reporting frequency in accordance with the monitoring plan and	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered	
	Criteria/Requirements	Assessment/Observation						
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as: $EG_{PJ, y, MP} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$ Where, $EG_{JMR, project, export, y}$=Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y. $EG_{JMR, project, import, y}$= Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y.						
Is measuring and reporting frequency in accordance with the monitoring plan and	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered							

	monitoring methodology? (Yes / No)	PD/01/ and monitoring methodology/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However the parameter $EG_{JMR,project,export,y}$ and $EG_{JMR,project,import,y}$ are calculated using measured values, are continuously monitored, hourly measured and monthly recorded ⁵ .
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate $EG_{JMR,project,export,y}$ and $EG_{JMR,project,import,y}$ is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the PPA/12/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment's is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the	Yes. The calibration frequency is once in 5 years as outlined in the registered PD/01/ is in accordance with the national standards/15/.

	local/national standards, or as per the manufacturer's specifications?	
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the measuring equipment's is carried out by an accredited entity.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters is valid for the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately.
	How were the values in the monitoring report verified?	Cumulative value of EG_{PJ, y,MP} for entire monitoring period is reported in the monitoring report/04/, and monthly values in the ER calculation sheet/05/. The monthly values were verified from the credit notes issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified as 52,282.36MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{PJ, y,MP} were further cross checked with the monthly invoices raised by the PP /07/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Remote assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.

	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CAR#4 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the solar modules. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

For Rajasthan Site:

Parameter	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh, $EG_{PJ, y, RJ}$ (MWh)	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as: $EG_{PJ, y, RJ} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$ Where, $EG_{JMR, project, export, y}$=Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y.

		EG_{JMR, project, import, y} = Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However the parameter EG_{JMR, project, export, y} and EG_{JMR, project, import, y} are calculated using measured values, are continuously monitored, hourly measured and monthly recorded ⁶ .
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment comply with local/national standards, or as per the manufacturer's specification?	The accuracy of the monitoring equipment used to measure the input values used to calculate EG_{JMR, project, export, y} and EG_{JMR, project, import, y} is 0.2s, which is as per the registered PD/01/ which is as per the norm defined in the PPA/12/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment's is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the

		meters is once in 5 years.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is once in 5 years as outlined in the registered PD/01/ is in accordance with the national standards/15/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the measuring equipment's is carried out by an accredited entity.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters is valid for the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately.
	How were the values in the monitoring report verified?	Cumulative value of EG_{PJ, y,RJ} for entire monitoring period is reported in the monitoring report/04/, and monthly values in the ER calculation sheet/05/. The monthly values were verified from the credit notes issued by state utility and found to be consistent. Value of this parameter for the current monitoring period was verified as 83,764.85MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{PJ, y,RJ} were further cross checked with the monthly invoices raised by the PP /07/

		to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Remote assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CAR#4 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the solar modules. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

ForTelangana Site

Parameter	Quantity of net electricity generation supplied by the project plant/unit to the grid in year y in MWh, $EG_{PJ, y, TL}$ (MWh)	
Means of verification	Criteria/Requirements	Assessment/Observation
	Measuring /Reading /Recording frequency	The parameter is calculated and recorded on monthly basis. Quantity of net electricity generation supplied by the project plant/unit to the grid in year y, is calculated as:

		$EG_{PJ, y, TL} = (\sum EG_{JMR, project, export, y} - \sum EG_{JMR, project, import, y})$ Where, $EG_{JMR, project, export, y}$ = Quantity of Electricity exported by the Project solar modules connected to the feeder i to the grid during the year y. $EG_{JMR, project, import, y}$ = Quantity of Electricity imported by the Project solar modules connected to the feeder i from the grid during the year y.
	Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes / No)	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/09/.
	Monitoring equipment	No monitoring equipment is used as this parameter is calculated. However the parameter $EG_{JMR, project, export, y}$ and $EG_{JMR, project, import, y}$ are calculated using measured values, are continuously monitored, hourly measured and monthly recorded ⁷ .
	Is accuracy of the monitoring equipment as stated in the monitoring plan? If the monitoring plan does not specify the accuracy of the monitoring equipment, does the accuracy of the monitoring equipment	The accuracy of the monitoring equipment used to measure the input values used to calculate $EG_{JMR, project, export, y}$ and $EG_{JMR, project, import, y}$ is 0.2s, which is as per the registered PD/01/ which is as per the

	comply with local/national standards, or as per the manufacturer's specification?	norm defined in the PPA/12/.
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Yes. The accuracy of monitoring equipment's is valid for the entire range.
	Calibration frequency /interval:	Calibration frequency of the meters is once in 5 years.
	Is the calibration interval in line with the monitoring plan and/or methodology? If the monitoring plan does not specify the frequency of calibration, is the selected frequency in accordance with the local/national standards, or as per the manufacturer's specifications?	Yes. The calibration frequency is once in 5 years as outlined in the registered PD/01/ is in accordance with the national standards/15/.
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Calibration of the measuring equipment's is carried out by an accredited entity.
	Is(are) calibration(s) valid for the whole reporting period?	Calibration of meters is valid for the current monitoring period.
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Yes. The calibration is carried out appropriately.
	How were the values in the monitoring report verified?	Cumulative value of $EG_{PJ, y, TL}$ for entire monitoring period is reported in the monitoring report/04/, and monthly values in the ER calculation sheet/05/. The monthly values were verified from the credit notes issued by state utility and

		found to be consistent. Value of this parameter for the current monitoring period was verified as 445,920.42MWh.
	If applicable, has the reported data been cross-checked with other available data?	The monthly reported values of EG_{Pj, y,T} were further cross checked with the monthly invoices raised by the PP /07/ to state utility and found to be consistent.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Remote assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
	In case project participants have temporarily not monitored the parameter, has either i) a deviation been approved by the CDM EB or ii) has the parameter been estimated as stipulated by Appendix 1 to the CDM Project Standard?	No such issues.
Findings	CAR#4 was raised and resolved	
Conclusion	The parameter has been monitored appropriately, in accordance with the registered monitoring plan (as per measurement methods and procedures to be applied) and applied methodology. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the solar modules. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors.	

Parameters fixed ex ante:

$EF_{grid,OM,y}$; tCO_{2e}/MWh : it is the operating margin emission factor of NEWNE grid fixed at the time of project registration the mentioned value of $0.9726tCO_{2e}/MWh$ is consistent with the registered PD/01/.

$EF_{grid,BM,y}$; tCO_{2e}/MWh : it is build margin emission factor of NEWNE grid fixed at the time of project registration the mentioned value of $0.8723tCO_{2e}/MWh$ is consistent with the registered PD/01/.

$EF_{grid,CM,y}$; tCO_{2e}/MWh : it is the combined margin emission factor of NEWNE grid fixed at the time of project registration the mentioned value of $0.9475tCO_{2e}/MWh$ is consistent with the registered PD/01/.

Calibration of meters:

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

The current meter details for Renew Solar Power Private Limited is as follows:

Name of SPVs	Capacity in MW	Meter Serial No.	Accuracy Class	Make	Date of Calibration	Due date of calibration ⁸
Bhumi Prakash Private Limited	20 MW	Main Meter-15197833	0.2 s	L & T	23.09.2017	22.09.2022
		Check Meter-15197834	0.2 s	L & T	23.09.2017	
Renew Wind Energy (MP Four) Private Limited	20 MW	Main Meter-16083161	0.2 s	L & T	20.04.2017	19.04.2022
		Check Meter-16083118	0.2 s	L & T	20.04.2017	
Renew Agni Power Private Limited	20 MW	Main Meter-16113386	0.2 s	L & T	21.02.2017	20.02.2022
		Check Meter-16113401	0.2 s	L & T	21.02.2017	
Renew Wind Energy (Karnataka 3) Private Limited	20 MW	Main Meter-16113413	0.2 s	L & T	05.02.2017	04.02.2022
		Check Meter-16113221	0.2 s	L & T	05.02.2017	
Tarun Kiran Bhoomi Private	20 MW	Old Main Meter-	0.2 s	L & T	12.02.2017	03.09.2024

⁸At the time of commissioning, newly calibrated meters were installed. Also, the calibration frequency is once in five years, the calibrations are valid during the current monitoring period. Hence, no delay in error factor is applicable, during the current monitoring period.

Limited ⁹		15197833				
		Old Check Meter-15197834	0.2 s	L & T	12.02.2017	
		New Main Meter-16193095	0.2 s	L & T	04.09.2019	
		New Check Meter-13192165	0.2 s	L & T	04.09.2019	
Renew Wind Energy (Karnataka 4) Private Limited	20 MW	Main Meter-16083139	0.2 s	L & T	06.03.2017	05.03.2022
		Check Meter-16083133	0.2 s	L & T	06.03.2017	
Renew Wind Energy (Budh 3) Private Limited	20 MW	Main Meter-17069178	0.2 s	L & T	23.02.2018	22.03.2023
		Check Meter-17069183	0.2 s	L & T	23.02.2018	
Renew Wind Energy (Budh 3) Private Ltd	20 MW	Main Meter-17166928	0.2 s	L & T	14.02.2018	13.02.2023
		Check Meter-17166940	0.2 s	L & T	14.02.2018	
Renew Wind Energy (Budh 3) Private Limited	20 MW	Main Meter-16113377	0.2 s	L & T	20.12.2017	19.12.2022
		Check Meter-16113373	0.2 s	L & T	20.12.2017	
Renew Wind Energy (Maharashtra) Private Limited	20 MW	Main Meter-16113430	0.2 s	L & T	30.06.2017	29.06.2022
		Check Meter-16113436	0.2 s	L & T	30.06.2017	
Renew Wind Energy (Rajasthan Four) Private Limited	20 MW	Main Meter-16112918	0.2 s	L & T	27.09.2017	26.09.2022
		Check Meter-	0.2 s	L & T	27.09.2017	

⁹The newly calibrated main & check meters were installed on 04.09.2019.

		16112913				
Renew Wind Energy (MP Three) Private Limited	20 MW	Main Meter-16112933	0.2 s	L & T	27.09.2017	26.09.2022
		Check Meter-16112921	0.2 s	L & T	27.09.2017	
Renew Saur Urja Private Limited	50 MW	Old Main Meter-16083197	0.2 s	L & T	27.04.2017	26.04.2022
		Old Check Meter-16083162	0.2 s	L & T	27.04.2017	
		New Main Meter-17117926	0.2 s	L & T	27.04.2017	26.04.2022
		New Check Meter-17117928	0.2 s	L & T	27.04.2017	
Renew Wind Energy (TN2) Private Limited	50 MW	Main Meter-16195517	0.2 s	L & T	08.12.2017	07.12.2022
		Check Meter-16195508	0.2 s	L & T	08.12.2017	
		Main Meter-16195519	0.2 s	L & T	08.12.2017	
		Check Meter-16195523	0.2 s	L & T	08.12.2017	
Renew Solar Energy (Karnataka Two) Private Limited	40 MW	10195523	0.2 s	Secure	20.03.2017	19.03.2022
Renew Clean Energy Private Limited	51 MW	XE518730 XE518731	0.2 s	Secure	25.05.2017	24.05.2022
Aalok Solarfarms Limited	10 MW	17075514	0.2 s	L & T	08.08.2017	07.08.2022
Abha Solarfarms Limited	10 MW	17075486	0.2 s	L & T	04.08.2017	03.08.2022
Heramba Renewbles Limited	20 MW	17075537	0.2 s	L & T	04.08.2017	03.08.2022
		17075547	0.2 s	L & T	04.08.2017	

Shreyas Solarfarms Limited	20 MW	17075525	0.2 s	L & T	04.08.2017	03.08.2022
		17075530	0.2 s	L & T	04.08.2017	
Renew Solar Energy(Telangana) private Limited	143 MW	Main Meter-APX01166	0.2 s	Secure	20.10.2021	19.10.2022
		Check Meter-APX01167	0.2 s	Secure	20.10.2021	
		Standby Meter-APX01168	0.2 s	Secure	20.10.2021	
Renew Mega Solar Power Private Limited	48 MW	Main Meter-APX01147	0.2 s	Secure	10.01.2017	09.01.2022
		Check Meter-APX01148	0.2 s	Secure	10.01.2017	
		Standby Meter-APX01149	0.2 s	Secure	10.01.2017	
Renew Saur Shakti Private Limited	30 MW	Main Meter-16196362	0.2 s	L & T	10.01.2017	10.01.2022
		Check Meter-16196398	0.2 s	L & T	10.01.2017	
		Standby Meter-16196385	0.2 s	L & T	10.01.2017	
Renew Saur Shakti Private Limited	65 MW	Main Meter-16196322	0.2 s	L & T	11.01.2017	10.01.2022
		Check Meter-16196377	0.2 s	L & T	11.01.2017	
		Standby Meter-16196411	0.2 s	L & T	11.01.2017	
Renew Wind Energy (TN2) Private Limited	100 MW	Main Meter-APZ00378	0.2 s	Apex 150	08.10.2017	09.10.2022
		Check Meter-APZ00379	0.2 s	Apex 150	08.10.2017	
		Standby Meter-	0.2 s	Apex 150	08.10.2017	

		APZ00380				
Prathamesh Solarfarms Limited	50 MW	Main Meter-XD551233	0.2 s	Secure	18.09.2017	17.09.2022
		Check Meter-XD551234	0.2 s	Secure	18.09.2017	
		Standby Meter-XD551235	0.2 s	Secure	18.09.2017	

The assessment team has verified the monthly credit notes issued by the state utility and confirmed that only the data recorded through main meters is used to calculate net electricity supplied to the grid consequently for ER calculations.

Assessment on delay in calibration:

There is no delay found in in meter calibration as the meter calibration frequency is “Once in five years” and as the meter calibration during the current monitoring period has happened in 2019 as provided above. , the latest calibration report dated 2017 has been provided by the PP and same has been updated in FVR. Hence, the due date for meter calibration is in 2022, which is outside the monitoring period.

The verification team has remotely checked all the meters and confirmed that the meters were working satisfactorily. Also the calibration of meters is completely under preview of state utility and PP has no control over the same as confirmed through interviews of site personnel and PPA signed by the PP with state utility/12/.

Hence it can be concluded that the approach followed by the PP is conservative and in line with the guidelines provided under paragraph 366(a) of VVS version 03.

The registered VCS PD/01/ & MR /04/ and remote audit observations confirm that the metering equipment are sealed and maintained by the state utility.

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

GHG Calculations

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

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

Where:

BE_y : Baseline emissions in year y (tCO_2/yr)

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

$EF_{grid, CM, y}$: Combined Margin (CM) Emission Factor of NEWNE (tCO_2/MWh)

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

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

Where,

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

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

Thus, $BE_y = 996714.89 * 0.9475 tCO_2/MWh$

= 944387 tCO_2e (rounded down value)

The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified. The verification team confirms that appropriate methods and formulae for calculating baseline emissions have been followed. The assumptions, emission factors and default values that were applied in the calculations are justified. The actual emission reduction achieved during the current monitoring period are - 11.34% lower than the estimated amount of emission reductions at the time of validation, which is due to the high PLF achieved by the project activity during the monitoring period. The generation of electricity depends upon many other climatic conditions, which are not within the control of the project participant. Furthermore, the assessment team checked the registered PD and verified that in the sensitivity analysis, increase in PLF is well within the sensitivity analysis margin of 10% assumed in the financial calculation and does not have any impact on additionality; hence the assessment team has concluded the increase in emission reduction of the project activity is justified and acceptable.

All the data were made available and have monitored as per required monitoring frequency. The means of verification for the values of parameters, used for baseline emission calculation, is described above. The emission reduction calculation for the project activity is estimated based on the electricity supplied by the TG sets installed at site. Monthly values of electricity generated inserted in the ER sheet was verified with the Joint Meter Reading Report and Invoices provided by the project proponent. Since 100% data was verified, the team can ascertain that the values taken for emission reduction calculation are free from material errors. Therefore, the assessment team confirms that the emission reductions are free from any omissions, misstatement and material errors.

4.6 Non-Permanence Risk Analysis

Not applicable for the project activity. This section is not applicable for non-AFOLU projects.

5 VERIFICATION CONCLUSION

Applus+ certification, contracted by Renew Solar Power Private Limited, has performed the independent verification of the emission reductions for the VCS project activity (VCS ID- 1851) “Renewable Solar Power Project by ReNew Solar Power Private Limited” in India for the monitoring period 26-May-2021 to 31-December-2021 as reported in the Monitoring Report Version 02 dated 02/02/2022. The Renew Solar Power Private Limited is responsible for the collection of data in accordance with the monitoring plan and the reporting of GHG emissions reductions from the project activity.

It is our responsibility to express an independent verification statement on the reported GHG emission reductions from the project activity

Applus+ certification commenced the verification on the basis of the baseline and monitoring methodology ACM0002 Version 19, the monitoring plan contained in the registered VCS PD Version 02, dated 02/02/2019 and VCS guidelines version 4, Monitoring Report Version 02 dated 02/02/2022 as per the process described under Section 2 of this report.

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

In our opinion the GHG emissions reductions reported for the project activity for the period 26-May-2021 to 31-December-2021 are fairly stated in the Monitoring Report Version 02 dated 02/02/2022. The GHG emission reductions were calculated correctly on the basis of the

approved baseline and monitoring methodology ACM0002, Version 19, and the VCS standard 4.1.

Verification period: From 26-May-2021 to 31-December-2021 (including both days)

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

Year	Baseline emissions or removals (tCO ₂ e)	Project emissions or removals (tCO ₂ e)	Leakage emissions (tCO ₂ e)	Net GHG emission reductions or removals (tCO ₂ e)
26-May-2021 to 31-December-2021	944,387	0	0	944,387
Total	944,387	0	0	944,387

APPENDIX 1: <REFERENCES>

S.No	Title of Document	Version	Date
1.	Registered VCS PD	02	02-02-2019
2.	VCS Validation Report	02	08/02/2019
3.	VCS Monitoring Report	01	21/01/2022
4.	VCS Monitoring Report (Final)	02	02/02/2022
5.	ER spread sheet (corresponding to the final monitoring report)	02	02/02/2022
6	Certificates of Calibration for all the meters belongs to project activity	-	26/05/2021 to 31/12/2021
7.	Invoice issued by PP to state DISCOM	-	For the period 26/05/2021 to 31/12/2021
8.	Monthly JMR and Credit notes issued by MSEDCL for the current verification period.	-	For the period 26/05/2021

S.No	Title of Document	Version	Date
			to 31/12/2021
9.	"Grid-connected electricity generation from renewable sources", ACM0002	19.0	-
10.	CEA Database	Version 14	Dec 2018
11.	Commissioning certificate for all the SOLAR MODULEs of the project activity issued by state electricity authority	-	
12.	Power Purchase Agreements signed between respective Project developer and state electricity authority	-	-
13.	VCS webpage for the project, VCS ID 1851; https://www.vcsprojectdatabase.org/#/project_details/1851	-	Last accessed on 07/02/2022
14.	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period	-	21/01/2022
15.	Central Electricity Authority (Installation and Operation of Meters) Regulations Notified on 17/03/2006 No. 502/70/CEA/DP&D Amendments Notified on 26/06/2010 No. 502/6/2009/DP&D/D-I	-	Dated 17/03/2006
16.	VCS Standard	Version 4.1	Issued:19-09- 2019 Updated: 22- 04-2021
17.	VCS Program Guide	Version 4	19/09/2019
18.	Remote assessment –interviews of staff personnel, physical inspection of monitoring system	-	24/01/2022
19.	Monthly generation reports issued by O&M contractor	-	For the period 26/05/2021 to 31/12/2021
20.	Clean Development Mechanism Validation and Verification	3.0	

S.No	Title of Document	Version	Date
	Standard for Project Activity (CDM-VVS for PA), as per EB 101, Annex 2		

APPENDIX 2: <COMPETENCY STATEMENT>

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

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

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

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

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

Name	Qualification	Coverage of scope	Coverage of technical Area	Financial aspect	Host country Experience	Attendance to the Remote-Site Assessment
Vivek Kumar Ahirwar	Lead Auditor (LA) & Technical Expert (TE)	Yes (1)	Yes (1.2)	N/A	Yes	Yes
Simon Shen	Technical Reviewer (TR)	Yes (1)	Yes (1.2)	N/A	N/A	N/A

The curriculum vitae of the VVB's team members are provided below:

Vivek Kumar Ahirwar is a BEE-Certified Energy Auditor by Govt of India with over eight years of relevant experience in energy efficiency, energy audit, thermal and electrical energy generation technology from renewable source and energy conservation in energy intensive industries, designated consumers and commercial buildings, implementation of energy conservation building codes, research, process and green building projects. He is a certified lead auditor for ISO 14001 EMS and 14064. He has experience under various categories of projects stating from renewable to waste to supercritical projects and WCD. He has successfully audited more than 100 GHG (CDM/VCS/GS) projects in different states across the India. He has

done Master in Technology (Energy Management) from a premier institute, School of Energy & Environmental Studies, DAVV, Indore (M.P.), India and Bachelor of Engineering (Mechanical Engineering) from Govt. Engineering college, Rewa, RGPV, India.

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/Verifier and ISO 9001/14001 Lead Auditor for 3.5 Years.

APPENDIX 3: <ABBREVIATIONS>

ABT	Availability Based Tariff
BEF	Baseline Emission Factor
BM	Build Margin
CAR	Corrective Action Request
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CL	Clarification Request
CMS	Central Monitoring System
CMP	Conference of Parties Serving as Meeting of Parties
CO2	Carbon dioxide
DISCOM	Distribution Company
EB	Executive Board
EPC	Engineering, Procurement and Construction
FAR	Forward Action Request
GHG	Green House Gas
ISO	International Standards Organization
JMR	Joint Meter Reading

kW	Kilowatt
kWh	Kilowatt hour
MEDA	Maharashtra Energy Development Agency
MFR	Multi-Function Relay
MR	Monitoring Report
MSDCL	Maharashtra State Electricity Distribution Company Limited
MW	Megawatt
MWh	Megawatt-hour
NEWNE	Northern Eastern Western Northern-Eastern
O&M	Operation and Maintenance
PD	Project Description
PLF	Plant Load Factor
PP	Project Proponent
PPA	Power Purchase Agreement
QA/QC	Quality Assurance and Quality Control
Solar	Solar Module
TOD	Time of the Day
UNFCCC	United Nations Framework Convention on Climate Change
WEC	Wind Energy Convertor
WEG	Wind Energy Generator
WTG	Wind Turbine Generator
VCS	Voluntary Carbon Standard
VCSA	Voluntary Carbon Standard Association
VCS PD	VCS Project Description

VCUs	Voluntary Carbon Units
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APPENDIX 4: <FINDINGS OVERVIEW>

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

FAR ID	Section no.	NA	Date :DD/MM/YYYY
Description of FAR			
N/A			
Project participant response			Date :DD/MM/YYYY
NA			
Documentation provided by project participant			
NA			
VVB assessment			Date: DD/MM/YYYY
NA			

Table 2. CL from this verification

CL ID	01	Section no.	MR	Date : 25/01/2022
Description of CL				
PP shall provide the :				
1. Commissioning Certificates of all SPVs				
2. PPA for each state section				
3. Technical details of the equipment				
Project participant response				Date : 02/02/2022
The Commissioning certificates, PPA and the technical details are now submitted to the VVB Assessment Team.				
Documentation provided by project participant				
1. Commissioning Certificates				
2. PPA				
VVB assessment				Date:06/08/2022
PP has provided the required supporting and found inline. Hence CL#1 is closed				

Table 3. CAR from this verification

CAR ID	01	Section no.	Page 2 of the MR	Date 25/01/2022
--------	----	-------------	------------------	-----------------

Description of CAR	
On page no 2 of the MR, Contents is not correct and as per the template of the VCS MR. PP is requested to rectify the same.	
Project participant response	Date : 02/02/2022
The Contents page is now corrected as per the template of the VCS MR.	
Documentation provided by project participant	
1. Monitoring Report	
VVB assessment	Date: 06/08/2022
PP has corrected the MR and found inline, Hence CAR#1 is closed	

CAR ID	02	Section no.	1.10 & 2.2	Date :25/01/2022
Description of CAR				
1. PP is requested to submit the deceleration letter to avoid the double counting.				
2. Grievances/ LSC register are not submitted to auditor for assessment.				
Project participant response				Date : 02/02/2022
1. The declaration letter and is now submitted to the VVB assessment Team.				
2. The Grievance register is now submitted to the VVB assessment Team.				
Documentation provided by project participant				
1. Declaration letter				
2. Grievance register.				
VVB assessment				Date: 06/08/2022
PP has provided the supporting and the declaration letter dated 21/01/2022 and Grievance register. Hence CAR#2 is closed				

CAR ID	03	Section no.	3.2.2	Date :25/01/2022
Description of CAR				
PP has requested Deviation in current monitoring period. However, it is not clear that the PP are seeking Deviation for current monitoring period or its approved during last MP period.				
Project participant response				Date : 02/02/2022
The PP has sought project description deviation during the last verification which was approved by verra. The same is applicable during the current Monitoring period also and the same has been mentioned in the section 3.2.2 of MR.				

Documentation provided by project participant	
1. Monitoring Report	
VVB assessment	Date: 06/08/2022
PP has updated the MR and found correct and meeting the requirement. Hence, CAR #03 is closed.	

CAR ID	04	Section no.	ER sheet	Date :25/01/2022
Description of CAR				
PP has not provided the complete JMR for current Monitoring period and also round down is also not applied in the ER sheet. Corrective action is raised for the same.				
Project participant response				Date : 02/02/2022
The JMRs for the complete monitoring period are now submitted to the VVB Assessment Team. Rounddown is now applied in the ER sheet.				
Documentation provided by project participant				
1. JMRs & Invoices				
VVB assessment				Date: 06/08/2022
PP has submitted the revised MR & ER along with the supporting document and found correct. Hence CAR#4 is closed.				

Table 4. FAR from this verification

FAR ID	XX	Section-No.	XX	Date :
Description of FAR				
NA				
Project participant response				Date : DD/MM/YYYY
NA				
Documentation provided by project participant				
NA				
VVB assessment				Date: DD/MM/YYYY
NA				