VERIFICATION REPORT FOR

"BIOMASS BASED STEAM GENERATION PROJECT BY STERLING AGRO INDUSTRIES LTD."

Document Prepared By LGAI Technological Center, S.A. (Applus+ Certification)

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Summary:

LGAI Technological Center, S.A.. (here after referred as Applus+ Certification) has been contracted by Sterling Agro Industries Ltd to conduct the verification of the project "Biomass based steam generation project by Sterling Agro industries Ltd.", VCS ID 0563, against VCS Standard Version 4.1.
The verification includes confirming the implementation of the monitoring plan of the registered VCS PD and MR (Project ID 0563) and the application of the monitoring methodologies as per AMS I.C. version 13: "Thermal Energy production with or without electricity" A Verification On-site visit was conducted to verify the data submitted in the monitoring report.

The purpose of this project activity is to utilize rice husk (biomass) available in the region for cogeneration of steam and electricity for captive consumptionin the Dairy products manufacturing unit of Sterling Agro Industries Ltd. (SAIL) at Bhitouna plant, Kanshiram Nagar, Uttar Pradesh.. The Enen Green Services Private Limited is a new project proponent which include in project as VCS Project Consultant & Support for VCS project execution.
A risk based approach has been followed to perform this verification. In the course of verification, 04 Corrective Action request (CARs) and 06 Clarification request (CRs) were raised and successfully closed.
The review of the project design documentation, monitoring report and additional documents related to baselineand monitoring methodology; the subsequent background investigation, follow-up

interviews andstakeholders have provided Applus+ Certification with sufficient evidence to validate thefulfilment of the stated criteria.

Applus+ Certificationconfirms that the project is implemented in accordance with the registered VCS PD & MR. The monitoring system is in place and the emission reductions are calculated without material misstatements. Our opinion relates to the projects GHG emissions and the resulting GHG emission reductions reported and related to the valid and registered project baseline and monitoring and its associated documents. Based on the information seen and evaluated we confirm that the emission reductions from the project activity “Biomass based steam generation project by Sterling Agro industries Ltd” in India during the period 01-January-2013 to 31-December-2018(including both days) amount to 154,983 tonnes of CO2e.

1.INTRODUCTION

1.1 Objective

Applus+ Certification has been contracted by Sterling Agro Industries Ltd (project proponent), to undertake the verification of the renewable energy project titled "Biomass based steam generation project by Sterling Agro industries Ltd." (VCS ID- 0563) The verifiers have reviewed the GHG data collected to date for the monitoring period from 01/01/2013 to 31/12/2018 (both days included) covered in this verification.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 the verification was the independent and objective review and ex-post determination of the monitored reductions in GHG emissions from "Biomass based steam generation project by Sterling Agro industries Ltd.", VCS ID 0563". The verification of this project was based on the registered project description/01/ & monitoring report /04/ 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, dated 22/04/2021/14/

Approved methodologies for small-scale CDM Project activities:

AMS I.C, version 13, Title "Thermal Energy production with or without electricity"/9/

VCS Program Definitions (v4.1, dated 15/04/2021) /16/

VCS Program Guide, Version 4.0, 19/09/2019 /15/

ISO 14064-3: Specification with guidance for the validation and verification of greenhouse gas assertions, 2006

The verification is not meant to provide any consulting towards the client. However, stated request for clarifications and/or corrective actions may provide input for improvement of the project design.

1.3 Level of Assurance

The level of assurance of the verification report falls under reasonable assurance engagements as selected by the Client. 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. Materiality for the project is 5%.

1.4 Summary Description of the Project

Sterling Agro Industries Ltd. (Hereafter Project proponent) has undertaken a project activity, which entails thermal energy generation using renewable biomass. The purpose of the project activity is to utilise the available surplus renewable biomass in the region for the generation of thermal energy. The project activity was implemented in the Dairy products manufacturing unit of Sterling Agro Industries Ltd. (SAIL) at Bhitouna plant, Kanshiram Nagar, Uttar Pradesh. The generated thermal energy is being used for captive consumption in the Dairy products manufacturing unit.

Project proponent has installed a 15TPH biomass based boiler, which avoided the use of coal in steam generation. In the absence of this project activity, an equivalent amount of energy would have been generated from the coal based boiler with higher GHG emissions. In this current monitoring period from 1-January- 2013 to 31-December-2018; 100% rice husk was used and it resulted in the reduction of 154,983tons of GHG emissions.

The Enen Green Services Private Limited has joined as a other entity in VCS project which provided theVCS project consultancyand support for proper execution and management of VCS project. The project activity results in reductions of greenhouse gas (GHG) emissions that are real, measurable, and verifiable and also plays beneficial role in the mitigation of climate change.The calculation was assessed by the verification team and deemed as correct.

The project proponent applied the baseline methodology for small scale project activities AMS-I.C “Thermal Energy production with or without electricity”, version 13. The baseline scenario for the proposed project activity for steam generation was coal base boilers. The efficiency of the boiler using coal that would have been used in the absence of the project activity has been considered as 100% and chosen as ex-ante and it has been used for the calculating the baseline emissions as per the methodology.

The verification team has verified the technical specifications of the boiler equipments installed at the project site:

Boiler:

Parameters	**Units**	**Semi outdoor, Bi drum, water tube, AFBC boiler**
Make	-	M/s Cheema Boilers Ltd.

Boiler Identification number	-	UP-6510
Capacity	TPH	15
Steam Pressure	Kg/cm2	21
Steam Temperature	°C	Saturated
Fuel Used	-	- 100% Rice Husk -100% Coal -70% Rice husk/coal with 30% Bagasse

This Boiler specification was verified through photos of boiler in Verification On- visit and found to be in line with the details provided in the registered PD /01/.

Location of the project was verified through Latlong.net (https://www.gps-coordinates.net/) and found consistent with the data provided in the registered PD /01/.

The project qualifies the start date requirements under VCS and successfully Commissioned on25 April 2009 respectively. It has been checked against the commissioning certificate. Further in line with VCS guidelines, crediting period starts from 25April 2009 end up-to 24April 2019.The emission reductions from the project activity during the current monitoring period 01/01/2013 to 31/12/2018 (including both days) amount to 154,983tonnes of CO_2e.

2 VERIFICATIONPROCESS

The registered VCS project is undergoing secondVCS verification under first crediting period, 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's procedures in line with the requirements specified in the VCS standard Version 4.1 Requirements, CDM M&P, the latest version of the CDM Validation and Verification Standard, and relevant decisions of the COP/MOP and the CDM EB and applying standard auditing techniques.

It is to be 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
- Verification On-Site 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 registered VCS PD/01/, previous MR and Verification report and associated documents as stated in details 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

The representatives of the PP were interviewed during site visit on 19/09/2021. The details of the people interviewed are mentioned in the table

S N	Name	Role	Organization
1	Mr. Sunil Singh Chauhan	General Manager	SAIL
2	Mr. Ramavatar Sharma	DGM(General)	SAIL
3	Mr. B.K. Sinha	Q.A. Manger	SAIL
4	Mr. Narsingh	Q.A. Manager	SAIL
	Mr. Fakhar Rais	Boiler Technical manager	SAIL
5	Mr. Abhishek Kumar	VCS Project Consultant& Support as a new project proponent in project	Enen Green Services Pvt. 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 telephonic interview coupled with the documentation, photos and observations.

2.4 Site Inspections

Site Location visited: Bhitouna Village, Kanshiram Nagar District, Uttar Pradesh in India.

A Verification On-site visit was undertaken by the verification team on 19/09/2021to carry out the following;

a. An assessment of the implementation and operation of the registered project activity as per the registered VCS PD and VCS MR;
b. A review of information flows for generating, aggregating and reporting the monitoring parameters;
c. Interviews with relevant personnel to determine whether the operational and data collection procedures are implemented in accordance with the monitoring plan in the PD;
d. A cross check between information provided in the monitoring report and data from other sources such as plant logbooks, inventories, purchase records or similar data sources;
e. A check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PD, the applied methodology including applicable tool(s), and, where applicable, the applied standardized baseline;
f. A review of calculations and assumptions made in determining the GHG data and emission reductions;
g. An identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

2.5 Resolution of Findings

The objective of this 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 Verification On-site 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 (CR) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met. All CARs and CRs 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.

During the current verification, 04 Corrective Action request (CARs) and 06 Clarification request (CRs) and 00 Forward Action Request (FARs) were raised and successfully closed.

All the findings that are raised and communicated to project participant during the verification are included under Appendix 3. 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

Not applicable.

2.6 Eligibility for Validation Activities

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

3 VALIDATION FINDINGS

3.1 Participation under Other GHG Programs

The project is also registered under CDM mechanism of UNFCCC. Reference no of project is 2952. Credits from period 06/02/2010 to 31/12/2012are claimed as CERs under CDM verification. However for the current monitoring period there is no application for verification under CDM mechanism in order to avoid double counting. The PP also confirms that net GHG emission reductions or removals generated during this monitoring period (01/01/2013 to 31/12/2018) shall not be used for compliance under any other programs or mechanisms. This was confirmed through a declaration/12/ submitted by the PP and 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://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/

VVB Assessment team has been checked the verification under various mechanism and the below table justify the same. VVB assessment team confirms that there is no double counting for the period under various mechanisms

Mechanism in where Verification were verified	Monitoring period
VCS	25/04/2009 TO 05/02/2010
CDM	06/02/2010 TO 05/02/2011
CDM	06/02/2011 TO 31/12/2011
CDM	01/01/2012 TO 31/12/2012
VCS	01/01/2013 to 31/12/2018

3.2 Methodology Deviations

There is no methodology deviation identified during the current monitoring period.

3.3 Project Description Deviations

During it's first and second monitoring period under CDM, an increase in ER is observed due to following reasons:

1. Higher steam demand in the dairy products manufacturing unit results in higher PLF

2. Lower feed water inlet temperature

The changes described above from the registered PDD, version-1.3, dated 31/08/2009 are "permanent change". Changes are **permanent** under the situations mentioned under section B of Annex 66, EB 48. Therefore, the above changes trigger a notification in accordance with Section D of EB 48 Annex66.

Hence, PDD notification has been submitted to EB as per the guidelines outlined in Annex 66 and 67 of EB 48. Notification request was approved by UNFCCC on 01/02/2012. The details of the same can be found in following link of UNFCCC website- https://cdm.unfccc.int/Projects/DB/SGS-UKL1251986974.66/view

There are no changes to the project design of the project activity during this monitoring period.

VVB has been verified that the PP has seeking deviation against the requirement mentioned in Section B.7.1 of the CDM PDD (28/10/2011) which states that the assessment of biomass availability will be done annually. The PP has justified that the biomass assessment needs to be conducted once in entire crediting period and referring the clarification from UNFCCC- SSC - 255, ,(Clarification on vintage of data and survey period for assessment of biomass availability in AMS-I.D (submitted 17 Dec 08): SSC_255), which confirmed that the biomass assessment needs to be conducted once in entire crediting period. The PP has applied this deviation for the current monitoring period and the same is now reflected in the MR. VVB team has interviewed to the Plant people during the audit process and it was explained that surplus biomass is available in the region to cater the need of the current power plant and the plant that would be commissioned in the future. Therefore the explanation and deviation is acceptable to the VVB assessment team.

Furthermore, based on above review of deviation, VVB assessment team confirms that the deviation does not have any impact onthe applicability of the methodology, additionality or the appropriateness of the baseline scenario. This was verified and discussed with the PP and found to be acceptable.

3.4 Grouped Project

Not applicable. The project activity is not a grouped project

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

The project activity involves the installation and operation of a project activity, which entails thermal energy generation using renewable biomass. The purpose of the project activity is to utilise the available surplus renewable biomass in the region for the generation of thermal energy. The project activity was implemented in the Dairy products manufacturing unit of Sterling Agro Industries Ltd. (SAIL) at Bhitouna plant, Kanshiram Nagar, Uttar Pradeshwith longitude of 78°39'59.04" East and Latitude 27°49'52.13" North respectively.The generated thermal energy is being used for captive consumption in the Dairy products manufacturing unit.

The project activity was implemented in the Dairy products manufacturing unit of Sterling Agro Industries Ltd which has installed a 15TPH biomass based boiler, which avoided the use of coal in steam generation. In the absence of this project activity, an equivalent amount of energy would have been generated from the coal based boiler with higher GHG emissions. In this current monitoring period from 1-January- 2013 to 31-December-2018; 100% rice husk was used and it resulted in the reduction of 154,983tons of GHG emissions.

The implementation of the project activity was as described in the VCS PD, checked against supportive documents presented. The verification team was able to verify that there was no

change in project design compared to the design presented in the VCS PD.The installation and specification of boiler has been checked with commissioning certificates/7/ and site assessment/17/. The commissioning has also been duly validated in the VCS validation report of the project activity/02/. There was no major breakdown or shut downs during the monitoring period which might affect the applicability of methodology or might cause material errors in emission reductions.

Assessment team concludes the following:

- There is no material discrepancies between project implementation and the project description provided in the registered PDD.
- 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
- 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
- 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 CDM and VCS only. The VVB assessment team confirms that there is no double counting for the period under various mechanisms
- The project activity is complying with indicators for sustainable development in the interim approval guidelines for Clean Development Mechanism (CDM) projects from India as discussed in 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

There is no negative impact to any socio economic conditions of the region due to the project activity. Being renewable 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 (as referred under the section 1.11). Also, the generation of local employment has directly supported the socio-economic development of the status of the project region.

Rational: As per the notifications issued by Ministry of Environment and Forest(Government of India) notification dated 14/09/2006 andnotification dated 01/12/2009 (ref: http://moef.nic.in/downloads/rules-and-regulations/3067.pdf), regarding the requirement of

environmental Impact Assessment (EIA) studies as per the Environmental Protection Rule, 1986 (Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii) Ministry of Environment and Forests), any project developer in India needs to file an application to the Ministry of Environment and Forests (including a public hearing and an EIA) in case the proposed industry or project is listed in a predefined list.The renewable energy power Projects are not included in this list and thus, Environmental Impact Assessment for the biomass projects is not required to be done.

This project activity will not involve any negative environmental or socio-economic impacts, as the biomass based boiler are installed for generation of steam and power using biomass as fuel in boiler which is a clean source of energy. Hence no mitigation measures are required.

4.2.2 Local Stakeholder Consultation

At the time ofprojectregistration PP has organized stakeholder consultationmeetings by the District Magistrate,(Kasganj), Kashiram Nagar datedon 28/08/2008 and Gram PanchayatsofSoronroad, Kasganj, Kanshiram Nagar datedon 28/08/2008 as per theprovisionof VCS requirements and reported under thevalidated PD. A meetingwasalso held withvillagers at the plant siteon 28/08/2008. Meeting presidedwiththebriefintroductionoftheVillagers and representatives and investors. Mr. VimalAgrawal, Director, Sterling Agro Industries Ltd. Briefedaboutthe agenda ofthemeetings and introducedthe Global Warming, The plant has register and contactdetails at reception for local stakeholders to communicate. Local stakeholders mayevenmeetafter prior appointment withappointed person by management for anyissues or concern. Appointed person willresolvetheirissuesifany and alsonotifyhigher management abouttheirconcern and stepstaken to resolvetheirissues. The same will be recorded and reviewedonquarterly basis. During thecurrentmonitoringnocommentsreceived from local stakeholders. Therewasnocomment during theconsultation, however, PP has alsoplaced a grievance register onsite, wherein, the stakeholders canputdown his/her feedback and the same will be addressedontimely manner. However, there is no feedback/grievance has beenreportedwithinthismonitoringperiod. Therefore, nocorrective action wasrequired to be undertaken. This is verified by VVB through a copyofgrievance register.

4.3 AFOLU-Specific Safeguards

Not Applicable

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/20/. 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 steam generated from project activity. PP has provided all the sufficient data for current monitoring period. The value of the parameter net steam generation by project activity 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 and project emission is in compliance to the methodologies used i.e. AMS I.C version 13/9/.

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.

Parameter	**Quantity of steam generated .($Q_{steam,i}$)**
Means of verification	

Criteria/Requirements	**Assessment/Observation**
Measuring /Reading /Recording frequency	Reading is directly taken from steam flow meter by boiler attendant supervisor on daily basis.
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/9/.
Monitoring equipment	Equipment : Flow indicator and totalizer Type : Digital

			Range: 0 to 100% Serial number of equipment : 2k8060277	
		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?	Yes, the accuracy of the monitoring equipment used as per the registered PD/01/.	
		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 steam flowis annual	
		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 in line with the monitoring plan as outlined in the registered PD/01/.	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external accredited NABL agencies./07/.	
		Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of flow Indicator andTotalisermeter is valid for the whole reporting period.	

		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of steam flow meter from 19-02-2015 to 13-04-2015 and 12-04-2016 to 17-07-2016. The PP has applied the error factor as per meters permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that meters are operated properly within the permission limit of monitoring equipment.	
		How were the values in the monitoring report verified?	Cumulative value of Q_{steam} for entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. VVB has been verified the values: 2013: 111669 Tonne. 2014:111649 Tonne 2015: 109162 Tonne 2016: 109529 Tonne 2017: 102064 Tonne 2018: 109197 Tonne	

	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Temperature of the steam generated(T_{steam})**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	On site measurement taken from Temp Calibratorwith RTD2 sensor installed at steam outlet from the boiler.
	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/9/.

		Monitoring equipment	Equipment: Temp Calibrator with RTD2 sensor Type : Electronic Range: 0 to 600 DEG. C Serial number of equipment:07046215	
		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?	Yes, the accuracy of the monitoring equipment used as per the registered PD/01/.	
		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 temperature sensor is annual.	
		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 in line with the monitoring plan as outlined in the registered PD/01/.	

		local/national standards, or as per the manufacturer's specifications?	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external accredited NABL agencies./07/.
		Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of temperature sensor is valid for the whole reporting period.
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of temperature sensor from 19-02-2015 to 13-04-2015 and 12-04-2016 to 16-07-2016 and 10-07-2018 to 14-07-2018. The PP has applied the error factor as per temperature sensor permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that temperature sensor are operated properly within the permission limit of monitoring equipment.
		How were the values in the monitoring report verified?	Cumulative value of T_{steam} for entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found

		to be consistent. Following values have been verified : 2013: 218.5 2014: 217.8 2015: 217.6 2016: 217.8 2017: 217.8 2018: 217.8
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	Pressure of the steam generated .($P_{steam,i}$)
Means of verification	

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	On site measurement taken from pressure gauge installed at steam outlet from the boiler.
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/9/.
Monitoring equipment	Pressure gauge. Type : Electronic Range: 0 to 70 Kg/cm^3 bar Serial number of equipment :0408P601

		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?	Yes, the accuracy of the monitoring equipment as per the registered PD/01/.	
		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 Annual.	
		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 in line with the monitoring plan as outlined in the registered PD/01/.	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external accredited NABL agencies./07/.	
		Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of pressure gauge is valid for the whole reporting period.	
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of pressure gauge from 19-02-2015 to 13-04-2015 and 12-04-2016 to 14-07-2016 . The PP has applied the error factor as per pressure gauge	

		permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that pressure gauge are operated properly within the permission limit of monitoring equipment.	
	How were the values in the monitoring report verified?	Cumulative value of P_{steam} for entire monitoring period is reported in the monitoring report/05/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. Following values have been verified : 2013: 20.6 2014: 20.5 2015: 20.6 2016: 20.6 2017: 20.6 2018: 20.6	
	If applicable, has the reported data been cross-checked with other available data?	Not applicable	
	Does the data management ensure correct transfer of data and reporting of emission	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the	

	reductions and are necessary QA/QC processes in place?	data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Enthalpy of the steam generated ($E_{steam,I}$)**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	On-site measurement calculated from steam temperature and pressureusing steam table.
	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/9/.
	Monitoring equipment	Thisis a calculatedparameterhence no monitoring equipments isrequired.

		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?	Not Applicable	
		Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not Applicable	
		Calibration frequency /interval:	Not Applicable.	
		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?	Not Applicable	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Not Applicable	
		Is(are) calibration(s) valid for the whole reporting period?	Not Applicable	
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not Applicable	
		How were the values in the	Cumulative value of $E_{steam,I}$calculatedbased on the	

	monitoring report verified?	estimatedvalueof steam temperature and pressureusing steam table. for entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. Following values have been verified : 2013: 668.89 2014: 667.28 2015: 667.28 2016: 668.89 2017: 668.89 2018: 668.89
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Temperature of the feed water in the boiler.($T_{FW,i}$)**

Means of verification	

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	On-site measurement from temperature gauge installed at feed water inlet.
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/9/.
Monitoring equipment	Equipment: Temperature gauge. Type : Electronic Range: 0 to 600 DEG.C Serial number of equipment :07046215
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?	Yes, the accuracy of the monitoring equipment used as per the registered PD/01/.

		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 Annual.
		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 in line with the monitoring plan as outlined in the registered PD/01/.
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external accredited NABL agencies./07/.
		Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of temperature sensor is valid for the whole reporting period.
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of temperature sensor from 19-02-2015 to 13-04-2015 and 12-04-2016 to 16-07-2016 and 10-07-2018 to 14-07-2018. The PP has applied the error factor as per temperature sensor permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified

		the calibration certificates which confirmed that temperature sensor are operated properly within the permission limit of monitoring equipment.
	How were the values in the monitoring report verified?	Cumulative value of $T_{FW,i}$ for entire monitoring period is reported in the monitoring report/05/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. Following values have been verified : 2013: 78.4 2014: 78.5 2015: 78.4 2016: 78.5 2017: 78.3 2018: 78.5
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	Enthalpy of the steam generated ($E_{FW,I}$)

Means of verification

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	On-site measurement calculated from steam table
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/9/.
Monitoring equipment	This is a calculated parameter hence monitoring equipment is not required.
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?	Not Applicable
Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not Applicable
Calibration frequency /interval:	Not Applicable
Is the calibration interval in line with the monitoring plan and/or	Not Applicable

		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?	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Not Applicable
		Is(are) calibration(s) valid for the whole reporting period?	Not Applicable
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not Applicable
		How were the values in the monitoring report verified?	Cumulative value of $E_{FW,i}$calculatedusing the steam table. The valuefor entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. Following values have been verified : 2013: 78.38 2014: 78.48 2015: 78.39 2016: 78.45 2017: 78.32

		2018: 78.46
	If applicable, has the reported data been cross-checked with other available data?	Not applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Net Calorific Value of fossil fuel type i used ($NCV_{ff,I}$)**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	Net calorific value of fossil fuel type I used is checked using the plant log book records.
	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/9/.
	Monitoring equipment	Equipment: Digital Bomb Calorimeter Type: Digital Range :-10 to 10^0C Serial No.- 2171-02-03

		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?	Yes, the accuracy of the monitoring equipment used as per the registered PD/01	
		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 bomb calorimeter is Annual.	
		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 in line with the monitoring plan as outlined in the registered PD/01/.	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external accredited NABL agencies./07/.	
		Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of bomb calorimeter is valid for the whole reporting period.	
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of Digital Bomb Calorimeterfrom 20-02-2014 to 22-07-2014. The PP has applied the error factor as per Digital Bomb Calorimeter	

		permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that Digital Bomb Calorimeteris operated properly within the permission limit of monitoring equipment.	
	How were the values in the monitoring report verified?	Not Applicable, as No fossil fuel was combusted in this monitoring period. Following values have been verified : Zero for entire monitoring period	
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable, as No fossil fuel was combusted in this monitoring period	
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.	
Findings	Not Applicable		
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.		

Parameter	Net Calorific Value of biomass of type I used . ($NCV_{biomass,i}$)
Means of verification	

Criteria/Requirements	Assessment/Observation
Measuring /Reading /Recording frequency	Net calorific value of biomass was checked in the Plant laboratory using bomb calorimeter and algorithm as per IPCC-2006 guidelines, Volume-2 (Energy), Chapter-1(Introduction), page no-1.17
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/9/.
Monitoring equipment	Equipment: Digital Bomb Calorimeter Type: Digital Range :-10 to 10^0C Serial No.- 2171-02-03
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?	Yes, the accuracy of the monitoring equipment used as per the registered PD/01
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

		bomb calorimeter is Annual.	
	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 in line with the monitoring plan as outlined in the registered PD/01/.	
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external accredited NABL agencies./07/.	
	Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of bomb calorimeter is valid for the whole reporting period.	
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of Digital Bomb Calorimeterfrom 20-02-2014 to 22-07-2014. The PP has applied the error factor as per Digital Bomb Calorimeter permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that Digital Bomb Calorimeteris operated properly within the permission limit of monitoring equipment.	
	How were the values in the	Cumulative value of	

	monitoring report verified?	$NCV_{biomass}$ for entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. Following values have been verified : 9708.78
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On- site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	Not Applicable	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Quantity of fossil fuel of type i consumed annually.($Q_{fossil, i,y}$)**
Means of verification	

Criteria/Requirements	**Assessment/Observation**
Measuring /Reading /Recording frequency	OnsiteMeasurement byWeigh bridge
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/9/.
		Monitoring equipment	Equipment : Weigh bridge Type : Electronic Range: 0 to 12 TONSerial number of equipment: EB08MR051
		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?	Yes, the accuracy of the monitoring equipment as per the registered PD/01/.
		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 weighing bridge is Annual.
		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 in line with the monitoring plan as outlined in the registered PD/01/.
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external agency NABL accredited /07/.

	Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of weighing bridge is valid for the whole reporting period.	
	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	There was delay in calibration of Weighing balance/ indicatorfrom 20-02-2014 to 22-07-2014. The PP has applied the error factor as per Weighing balance/ indicator permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that Weighing balance/ indicatoris operated properly within the permission limit of monitoring equipment.	
	How were the values in the monitoring report verified?	Following values have been verified : Following values have been verified : Zero for entire monitoring period	
	If applicable, has the reported data been cross-checked with other available data?	The data were cross checked with the Invoices raised by biomass (rice husk) suppliers.	
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary	Verification On-site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is	

	QA/QC processes in place?	effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Quantity of Biomass of type i combusted in year y.($Q_{biomass, i,y}$)**	
Means of verification	**Criteria/Requirements**	**Assessment/Observation**
	Measuring /Reading /Recording frequency	MeasuringbyWeigh bridge
	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/9/.
	Monitoring equipment	Equipment : Weigh bridge Type : Electronic Range: 0 to 12 TON Serial number of equipment: EB08MR051

		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?	Yes, the accuracy of the monitoring equipment as per the registered PD/01/.	
		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 weighing bridge is Annual.	
		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 in line with the monitoring plan as outlined in the registered PD/01/.	
		Is the calibration of measuring equipment carried out by an accredited person or institution?	Yes the calibration is conducted by external agency NABL accredited /07/.	
		Is(are) calibration(s) valid for the whole reporting period?	Yes. Calibration of weighing bridge is valid for the whole reporting period.	
		Is the calibration carried out for a measuring range comparable with the range for which measurements have been	There was delay in calibration of Weighing balance/ indicatorfrom 20-02-2014 to 22-07-	

		carried out?	2014. The PP has applied the error factor as per Weighing balance/ indicator permissible limit in monitored value applied for ER calculation. The maximum error factors were applied in line with the requirements of § 366 of the CDM Validation and Verification Standard for Project Activities v3.0. Furthermore, the VVB assessment team has verified the calibration certificates which confirmed that Weighing balance/ indicatoris operated properly within the permission limit of monitoring equipment.	
		How were the values in the monitoring report verified?	Cumulative value of $Q_{biomass, i,y}$ for entire monitoring period is reported in the monitoring report/04/, however monthly values are reported in the ER calculation sheet/06/. The monthly values were verified from the plant data and found to be consistent. Following values have been verified : 2013:32,734.3 2014:32,671.21	

		2015: 31,825 2016:32,116.7 2017:32,159.1 2018: 32,007.8
	If applicable, has the reported data been cross-checked with other available data?	The data were cross checked with the Invoices raised by biomass (rice husk) suppliers.
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Verification On-site assessment of the project activity confirms that the necessary QA/QC procedures are in place and the data management system is effective and reliable.
Findings	No finding has been raised	
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.	

Parameter	**Biomass Availability**
Means of verification	

Criteria/Requirements	**Assessment/Observation**
Measuring /Reading /Recording frequency	Surplusbiomassavailability in the regionwasMeasuredonthe basis ofthe assessment conducted at thebeginningofthecreditingperiod.
Is measuring and reporting frequency in accordance with the monitoring plan and monitoring methodology? (Yes	Yes. The reporting frequency is in line with the monitoring plan as outlined in the registered PD/01/ and monitoring methodology/9/.

	/ No)		
	Monitoring equipment	Not Applicable	
	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?	Not Applicable	
	Is the accuracy valid for the entire measuring range or do different accuracy levels apply to different measuring ranges?	Not Applicable	
	Calibration frequency /interval:	Not Applicable	
	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?	Not Applicable	
	Is the calibration of measuring equipment carried out by an accredited person or institution?	Not Applicable	
	Is(are) calibration(s) valid for the whole reporting period?	Not Applicable	

	Is the calibration carried out for a measuring range comparable with the range for which measurements have been carried out?	Not Applicable	
	How were the values in the monitoring report verified?	Not Applicable	
	If applicable, has the reported data been cross-checked with other available data?	Not Applicable	
	Does the data management ensure correct transfer of data and reporting of emission reductions and are necessary QA/QC processes in place?	Not Applicable	
Findings	No finding has been raised		
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 methodologies. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan.		

Parameters fixed ex ante:

$EF_{,CO2}$: it is theCO2 emission factor per unit of energy of coal fixed at the time of project registration the mentioned value of 96.1tCO_2/ TJ is consistent with the registered PD/01/.

$\eta_{BL,\ thermal}$:it is the efficiency of the baseline coal fired boiler fixed at the time of project registration the mentioned value of 100% 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 through photos of meters and were found to be satisfactory. Details of meters are provided in below table:

Equipment Name	Accuracy class or Range of Equipment	Meter Sr. No.	Calibration Date	Calibration Valid till	Calibration delay? (As per Registered PD Annual calibration)
Temp Calibrator with RTD2 sensor	0-600^0 C	07046215	22/02/2012 21/02/2013 20/02/2014 13/04/2015 16/07/2016 11/07/2017 14/07/2018	21/02/2013 20/02/2014 19/02/2015 12/04/2016 15/07/2017 10/07/2018 13/07/2019	Yes, 19-02-2015 to 13-04-2015 & 12-04-2016 to 16-07-2016 & 10-07-2018 to 14-07-2018
Digital Pressure Gauge	0-70 Kg/cm^3	0408P601	22/02/2012 21/02/2013 20/02/2014 13/04/2015 14/07/2016 13/07/2017 12/07/2018	21/02/2013 20/02/2014 19/02/2015 12/04/2016 13/07/2017 12/07/2018 11/07/2019	Yes, 19-02-2015 to 13-04-2015 & 12-04-2016 to 14-07-2016
Flow Indicator And Totaliser	Range: 0 to 100%	2K8060277	22/02/2012 21/02/2013 20/02/2014 13/04/2015 17/07/2016 15/07/2017 14/07/2018	21/02/2013 20/02/2014 19/02/2015 12/04/2016 16/07/2017 14/07/2018 13/07/2019	Yes, 19-02-2015 to 13-04-2015 & 12-04-2016 to 17-07-2016
Digital Bomb Calorimeter	Range: -10 to 10^0 C	2171-02-03	31/07/2012 21/02/2013 22/07/2014 15/07/2015 14/07/2016 13/07/2017 12/07/2018	30/07/2013 20/02/2014 21/07/2015 14/07/2016 13/07/2017 12/07/2018 11/07/2019	Yes, 20/02/2014 to 22/07/2014

Weighing Indicator	Range: 0 to 12 Ton	EB08MR051	31/07/2012 21/02/2013 22/07/2014 15/07/2015 14/07/2016 13/07/2017 12/07/2018	30/07/2013 20/02/2014 21/07/2015 14/07/2016 13/07/2017 12/07/2018 11/07/2019	Yes, 20/02/2014 to 22/07/2014

The Project proponent has applied the maximum error factor of equipment on monitored values as per GUIDELINES FOR ASSESSING COMPLIANCE WITH THE CALIBRATION FREQUENCY REQUIREMENTS" for delay calibration. The calculation is presented in ER sheet.

The details of monitoring equipment are involved in the project activity and their calibration details/07/ are mentioned in data and parameter monitored values tables of section 4.2 of the VCS MR/04/. The meters have been checked through photos in Verification On- visit and the meter details are found to be consistent with that observed during the site visit.

The assessment team has verified the monthly invoices, plant log book , NCV and calibration certificates and confirmed that only the data recorded through all meters is used to calculate parameters belongs to particular developer and consequently for ER calculations. As verified through the calibration certificates, that meters were working satisfactorily during the current monitoring period. The registered VCS PD/01/ & MR /04/ and meter photos confirm that the energy 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 methodologies equals the baseline emissions and project emissions (leakage emissions for such project activities is considered zero). The formula provided for the calculation of baseline emissions is:

A. Baseline Emission

Project:

A. Baseline Emission

As per the Para 34 of the AMS.I.C version 13 and section 4 of validated VCS PD:

The baseline emissions are calculated as follows:

$$BEy = HGy * EFCO2 / \eta th$$

Where;

BEy = the baseline emissions from steam displaced by the project activity during the year y in tCO2e. =

HGy = the net quantity of steam supplied by the project activity during the year y in TJ. =

EFCO2 = the CO2 emission factor per unit of energy of the coal that would have been used in the baseline plant in (tCO2 / TJ), IPCC default emission factor is used (96.1 tCO2/TJ).

ηth = the efficiency of the boiler using coal that would have been used in the absence of the project activity. =100%

Sample calculation with values of January 2013:

BEy=9730×1000 × (668.89 – 78.38) × 4.1868 × 96.1/10^9 / 100% = 2311 tCO_2.

For entire monitoring period from 01-January-2013 to 31-December-2018

BEy = 154,983 tCO_2

B. Project Emission:

Project Emissions due to Auxiliary Fuel (e.g. Coal) Consumption is estimated as per the following equation:

Project emissions on account of use of fossil fuel would be considered and monitored as per the "**Tool to calculate project or leakage CO2 emissions from fossil fuel combustion", version-02, EB41.**
Project Emissions due to Auxiliary Fuel (e.g. Coal) Consumption is estimated as per the following equation:

$$PEFC_{,j,y} = \Sigma FC_{i,j,y} * COEF_{i,y}$$

Where;
*PEFC,j,y:*are the CO2 emissions from fossil fuel combustion in process j during the year *y* (tCO2/yr)
*FCi,j,y:*the quantity of fuel type *i*combusted in process *j* during the year *y* (mass or volume unit/yr)
*COEFi,y:*the CO2 emission coefficient of fuel type *i*in year *y* (tCO2/mass or volume unit)

*i*the fuel types combusted in process *j* during the year *y*. yr(round up Value)

The CO2 emission coefficient *COEFi,y*is calculated based on net calorific value and CO2 emission factor of the fuel type *i*, as follows:

$$COEF_{i,y} = NCV_{i,y} * EFCO2_{i,y}$$

Where,

*COEFi,y:*the CO2 emission coefficient of fuel type i in year *y* (tCO2/mass or volume unit)

*NCVi,y:*the weighted average net calorific value of the fuel type *i*in year *y* (GJ/mass or volume unit)

*EFCO2,i,y:*the weighted average CO2 emission factor of fuel type *i*in year *y* (tCO2/GJ)

i the fuel types combusted in process *j* during the year *y*

Sample Calculation of Project Emission:

Since Fossil fuel consumption in the boiler is zero in this monitoring period, the value of

$\Sigma FC_{i,j,y} = 0$

$PEFC_{,j,y} = 0 * COEF_{i,y}$

PEFC,j,y= 0

C.Leakage:

A. Leakage as per the "General guidance on leakage in biomass project activities".

PP has conducted the biomass assessment study at the beginning of the crediting period and it was found that the quantity of available biomass in the region is more than 25% than the quantity of biomass that is utilized including the project activity. Since there is enough biomass residue available in the region that goes unutilized and hence leakage emissions on account of competing use of this biomass residue has not been considered.

B. Leakage due to transfer of equipments to/ from the project activity

As per the methodology, if the equipment is transferred from another activity or if the existing equipment is transferred to another activity, leakage is to be considered. The equipments installed in the project activity are not transferred from any other activity. Besides, no existing equipment has been transferred from the project site. Hence leakage for this part is zero.

C. Leakage due to transportation of biomass to the plant site

The project activity is not expected to cause any leakage emissions due to transportation of biomass; rather it is expected to result in reduced leakage emissions due to reduced transportation of fuel. In the pre-project scenario coal was procured from the mines located at a distance of around 300-350 kms from the project site, where as in the post project scenario the project activity the biomass is procured from in a region of max 100 kms from the project site. However being conservative the project proponent is not claiming any emission reductions due to reduced fuel transportation.

Calculation for Leakage:

As described above the Leakage (Ly) emission for this current monitoring period is zero. Ly = 0

Year wise Emission Reductions Calculations:

Year	Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Net GHG emission reductions or removals (tCO2e)
Year-2013	26,520	0	0	26,520
Year-2014	26,443	0	0	26,443
Year-2015	25,849	0	0	25,849
Year-2016	26,010	0	0	26,010
Year-2017	24,242	0	0	24,242

Year-2018	25,929	0	0	25,929
Total	154,983	0	0	154,983

The actual emission reductions achieved during the current monitoring period is -1.63% lower than the estimated ERs in the registered PD for the comparable period (estimated 157,548 i.e.26,258x 6 years). This is largely due to low plant load factor achieved during the current monitoring period. Considering, there is no increase in ERs than the estimated amount; it was found acceptable to the assessment team.

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.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.

4.6 Non-Permanence Risk Analysis

Not applicable for the project activity.

5 VERIFICATION CONCLUSION

LGAI Technological Center, S.A. (Applus+ Certification) (also referred to as Applus+ Certification), contracted by Sterling Agro Industries Limited, to perform the independent verification of the emission reductions for the VCS project activity (VCS ID- 0563) "Biomassbased steam generationproject by Sterling Agroindustries Ltd" in India for the monitoring period01/01/2013 to 31/12/2018 as reported in the Monitoring Report Version 03 dated 20/11/2021.The Sterling Agro Industries Limitedand Enen Green Services Private Limited(a new Project Proponent) 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+ Certificationcommenced the verification on the basis of the baseline and monitoring methodologies AMS I.C version 13, the monitoring plan contained in the registered VCS PD dated 02/06/2010 and VCS guidelines version 4.1, Monitoring Report Version 3.0 dated 20/11/2021as per the process described under Section 2 of this report.

Applus+ Certificationverification 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+ Certificationplanned and performed the verification by obtaining evidence and other information and explanations that Applus+ Certificationconsidered 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 01/01/2013 to 31/12/2018 are fairly stated in the Monitoring Report Version 03 dated 20/11/2021.The GHG emission reductions were calculated correctly on the basis of the approved baseline and monitoring methodologies AMS I.C version 13 and the VCS standard.

Verification period: From01/01/2013to 31/12/2018 (including both days)

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

Year	Baseline emissions or removals (tCO2e)	Project emissions or removals (tCO2e)	Leakage emissions (tCO2e)	Net GHG emission reductions or removals (tCO2e)
Year-2013 **(01-January - 2013 to 31-December 2013)**	26,520	0	0	26,520

Year-2014 **(01-January - 2014 to 31-December 2014)**	26,443	0	0	26,443
Year-2015 **(01-January - 2015 to 31-December 2015)**	25,849	0	0	25,849
Year-2016 **(01-January - 2016 to 31-December 2016)**	26,010	0	0	26,010
Year-2017 **(01-January - 2017 to 31-December 2017)**	24,242	0	0	24,242
Year-2018 **(01-January - 2018 to 31-December 2018)**	25,929	0	0	25,929
Total	154,983	0	0	154,983

APPENDIX 1: DOCUMENT REFERENCES

S.No	Title of Document	Version	Date
1.	Registered VCS PD	03	02/06/2010
2.	VCS Validation Report	01	
3.	Previous VCS Verification report (For Monitoring period: (01/01/2012-31/12/2012))	02	31/03/2020
4.	VCS Monitoring Report (Final)	3	20/11/2021
4.1	VCS Monitoring Report	1.0	08/09/2021
4.2	VCS Monitoring Report	2	23/10/2021
5.	ER spread sheet	1.0	08/09/2021
5.1	ER spread sheet	2.0	23/10/2021
6.	ER spread sheet (Final)	3.0	20/11/2021
7	Certificates of Calibration for all the meters belongs to project activity for energy meters, steam flow meters, temperature sensors, pressure sensors and Weighbridge	-	From 01/01/2013 to 31/12/2018
8.	Biomass weighment records		From 01/01/2013 to 31/12/2018
9.	Methodology AMS I.C, "Thermal Energy production with or without electricity"	Version 13 (AMS I.C.)	-
10.	Consent to Operate issued by Uttar Pradesh Pollution control board		
11.	VCS webpage for the project, VCS ID 0563; https://registry.verra.org/app/projectDetail/VCS/563	-	-
12.	Letter of declaration dated from PP regarding not having created or sought any other form of environmental credit for the same period	-	
13.	Biomass consumption record	-	From 01/01/2013 to 31/12/2018
14.	VCS Standard	Version 4.1	22/04/2021
15.	VCS Program Guide	Version 4.0	19/09/2019
16.	VCS Programme Definition	Version 4.1	15/04/2021
17.	Site assessment –interviews of staff personnel, photographs, physical inspection of monitoring system	-	19/09/2021
18.	NCV of biomass – NABL accredited third party test reports for the verification period under consideration.		From 01/01/2013 to 31/12/2018

APPENDIX 2: ABBREVIATIONS

Abbreviations	Full texts
CAR	Corrective Action Request
CDM PCP	Clean Development Mechanism Project Cycle Procedure
CDM PS	Clean Development Mechanism Project Standard
CDM VVS	Clean Development Mechanism Validation and Verification Standard
EB	Executive Board
EF	Emission Factor
EPC	Engineering ,Procurement and Construction
ER	Emission Reductions
CEA	Central Electricity Authority
CER	Certified Emission Reduction
CR	Clarification Request
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GOI	Government of India
IPCC	Intergovernmental Panel on Climate Change
MGR	Monthly Generation Reports
MP	Monitoring Plan
MR	Monitoring Report
MWh	Megawatt hour
NCV	Net Calorific Value
PD	Project Description
PP	Project Proponent
PS	Project Standard
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

APPENDIX 3: 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 :02/10/2021
Description of CR				
PP is requested to submit the following documents: 1. Undertaking letter from PP for no double Accounting 2. Calibration certificates particularly for the year 2012 and 2015 onwards for all instruments. 3. Some sample monthly generation log book record 4. Provide lab test record of GCV for entire monitoring period				
Project participant response				Date:23/10/2021
All requested documents submitted now				
Documentation provided by project participant				
Documents submitted				
VBB assessment				Date:25/10/2021
The PP has submitted the requested documents and same has been verified and found to be appropriate, hence accepted. The CL#1 closed				

CL ID	02	Section no.	ER	Date :02/10/2021
Description of CR				

1. PP is requested to clarify if they have mentioned the correct serial number of Bomb calorimeter in ER sheet 2. PP is requested to clarify if they have provided the correct calibration certificates for the year 2014 to DOE for verification as during assessment the dates mentioned in ER sheet were found inconsistent with the calibration certificate provided. 3. PP is requested to check if they have applied the correct cell numbers in formula for addition of "Quantity of steam generated" in the cells highligted with yellow colour in "BE_y" subsheet of ER sheet version 01

Project participant response	**Date:**23/10/2021
MR and ER sheet corrected and submitted as per comments 1. Serial number corrected now 2. Calibration dates are made consistent with certificate 3. ER sheet corrected now	
Documentation provided by project participant	
MR version 02 and ER version 02	
VVB assessment	**Date:**25/10/2021
The PP has submitted the revised MR and ER sheet, same has been review by the assessment team and found that the PP has addressed all the issues correctly. Hence, CL#2 is closed.	

CL ID	03	**Section no.**	1.9	**Date :02/10/2021**
Description of CR				
PP is requested to clarify the period of project activity for which it has received credits from CDM.				
Project participant response				**Date:**23/10/2021
Monitoring period for credit received from CDM is now corrected				
Documentation provided by project participant				
MR version 02				
VVB assessment				**Date:**25/10/2021
The PP has submitted the revised MR and same has been verified that found that the PP has corrected the monitoring period for credit received from CDM in the MR. Hence, CL#3 is closed.				

CL ID	04	**Section no.**	3	**Date :02/10/2021**
Description of CR				

PP is requested to clarify how the project boundary information is valid section 3.	
Project participant response	**Date:**23/10/2021
Project boundary information corrected in MR	
Documentation provided by project participant	
MR version 02	
VVB assessment	**Date:**25/10/2021
The PP has submitted the revised MR and same has been verified that found that the PP has corrected the project boundary information in the MR. Hence, CL#4 is closed.	

CL ID	05	**Section no.**	4.2	**Date :02/10/2021**
Description of CR				
PP is requested to clarify how the calibration happened in 2011 is valid for current monitoring period.				
Project participant response				**Date:**23/10/2021
MR and ER sheet corrected and submitted as per comments				
Documentation provided by project participant				
MR version 02 and ER version 02				
VVB assessment				**Date:**25/10/2021
The PP has provided the revised MR and ER sheet, the same has been verified and found that the calibration information has been corrected in the MR and ER sheet. Same has been verified from the calibration certificate and found to be correct. Hence , CL#5 is closed.				

CL ID	06	**Section no.**	5.4	**Date :02/10/2021**
Description of CR				
PP is requested to clarify if there is an increase or decrease in ERs achieved to the estimated ERs for the current monitoring period.				
Project participant response				**Date:**23/10/2021
MR and ER sheet corrected and submitted as per comments				
Documentation provided by project participant				
MR version 02 and ER version 02				

VVB assessment	Date:25/10/2021
The PP has provided the revised MR and ER sheet and same has been verified that the MR and ER has provided further details on an increase or decrease in ERs achieved to the estimated ERs for the current monitoring period, this is found to be correct, Hence , CL#6 is closed.	

Table 3. CAR from this verification

CAR ID	01	Section no.	MR	Date : 02/10/2021
Description of CAR				
1. PP is requested to use non bold format as per the instruction mentioned in VCS Monitoring report Template v4.0 guideline. 2. PP is requested to use non- italic font throughout the MR as per the VCS Monitoring report Template v4.0 guideline				
Project participant response				Date:23/10/2021
MR and ER sheet corrected and submitted as per comments 1. Bold format is corrected in MR 2. Non- italic font applied correctly				
Documentation provided by project participant				
MR version 02				
VVB assessment				Date:25/10/2021
The PP has provided the revised MR and same been verified and found that the PP has corrected the MR as per above comment , hence CAR#1 is closed.				

CAR ID	02	Section no.	3.2	Date : 02/10/2021
Description of CAR				
PP is requested to provide a working hyperlink in section 3.2				
Project participant response				Date:23/10/2021
Now hyperlink in section 3.2 is working correctly				
Documentation provided by project participant				
MR version 02				
VVB assessment				Date:25/10/2021

The submitted MR has been verified from assessment team and found that the hyperlink is working properly, hence CAR#2 is closed.

CAR ID	03	**Section no.**	4.2	**Date : 02/10/2021**
Description of CAR				
1. PP is requested mention the calibration dates of the instrument for the whole monitoring period in section 4.2 monitored parameters table or provide consolidated table for calibration in MR. 2. PP is requested to properly align and justify the monitoring parameter tables as they are found to be overlapping				
Project participant response				**Date:**23/10/2021
MR and ER sheet corrected and submitted as per comments 1. Calibration date now corrected 2. Parameter table corrected now				
Documentation provided by project participant				
MR version 02 and ER version 02				
VVB assessment				**Date:**25/10/2021
The PP has provided the corrected MR and ER sheet with corrected information of calibration and also corrects the parameter table. The calibration dates in MR and ER sheet are not consistent with submitted calibration certifcates and also NCV of bimass is not reported annually . Please provide NCV reports also.				
Project participant response				**Date:20/11/2021**
The calibration dates are corrected in MR and ER. The NCV report submitted.				
Documentation provided by project participant				
MR and ER sheet NCV report				
VVB assessment				**Date: 21/11/2021**
The PP has provided the corrected MR and ER sheet with corrected information of calibration and also corrects the parameter table. Hence, CAR#3 is closed.				

CAR ID	04	**Section no.**	5.1	**Date : 02/10/2021**
Description of CAR				
PP is requested to mention the combined calculation covering the entire monitoring period.				

Project participant response	**Date:**23/10/2021
MR and ER sheet corrected and submitted as per comments	
Documentation provided by project participant	
MR version 02	
VVB assessment	**Date:**25/10/2021
The PP has corrected the monitoring period in MR and same has been verified and found to be correct, hence, CAR#4 is closed.	

Table 4. FAR from this verification

~~FAR ID~~		~~Section No.~~	~~MR~~	~~Date : DD/MM/YYYY~~
~~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				

APPENDIX 4: Competency Statements

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 Assessment (Verification On-)
Vivek Ahirwar	Lead Auditor (LA)/ Technical Expert (TE)	Yes (1)	Yes (1.1)	N/A	Yes	Yes
Simon Shen	Technical Reviewer (TR)	Yes (1)	Yes (1.1)	N/A	N/A	N/A

The curricula 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 Mater 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+ certification 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+ certification, he had been worked for TÜV SÜD as a GHG validator/verifier and ISO 9001/14001 lead auditor for 3.5years.

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