

VERIFICATION AND CERTIFICATION REPORT

- GOLD STANDARD CER 1ST PERIODIC –

EVERBRIGHT ALTERNATIVE ENERGY
(DANGSHAN) LIMITED

BIOMASS POWER GENERATION PROJECT BY
EVERBRIGHT ALTERNATIVE ENERGY
(DANGSHAN) LIMITED

GOLD STANDARD REF. NO. : 2420

Monitoring Period: 2012-04-01 to 2013-03-31
(incl. both days)

Report No: QT-SHC04016/13 – 13/115

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Project:	Title: Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited		GS Registration date: 2013-12-20	GS-No.: 2420
			Verification No.: 1st GS CER periodic verification	
	GS Crediting period:		From:	To:
	☒ Renewable (7y) ☐ Fixed (10y)		2012-04-01	2018-08-31 ¹
	Project Scale:			
	☒ Large Scale ☐ Small Scale			
Project Participant(s):	Client: Everbright Alternative Energy (Dangshan) Limited			
	Non Annex 1 country: P.R.China		Annex 1 country: United Kingdom of Great Britain and Northern Ireland	
	PP from non Annex 1 country: Everbright Alternative Energy (Dangshan) Limited		PP from Annex 1 country: Macquarie Bank Limited	
Applied methodology/ies:	Title: Consolidated methodology for electricity generation from biomass residues in power- only plants		No.: ACM0018 ver.02.0.0	Scope(s) / TA(s) 1/1.1&1.2
Monitoring period and monitoring report	Monitoring period (MP):			Monitoring Report:
	From:	To:	No. of days:	Draft version:
	2012-04-01	2013-03-31	365	CMR 2014-01-15 SMR 2014-01-15
				Final version: CMR 2014-01-15 SMR 2014-02-10
Verification team / Technical Review and Final Approval:	Verification Team: TL: Zhao Xuejiao TM: Wang Wei		Technical review: Alexandra Nebel Stefan Winter	Final approval: Alexandra Nebel
Key dates of verification:	Publication of MR :	DVerR issued:	On-site (from):	On-site (to):
	-	2014-01-17	2014-01-17	2014-01-17
Summary of Verification opinion	Everbright Alternative Energy (Dangshan) Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the Gold Standard CER 1st periodic verification of the project: "Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited", with regard to the relevant requirements for CDM project activities. As a result of this verification, the verifier confirms that: ☒ all operations of the project are implemented and installed as planned and described in the validated project design document, ☒ the monitoring plan is in accordance with the applied approved CDM methodology, ☒ the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately, ☒ the monitoring system is in place and functional. The project has generated GHG emission reductions, and ☒ the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner.			

¹ The first crediting period under GS and UNFCCC ends on the same date. And the start date of the first crediting period under UNFCCC is 01/09/2011.



	TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as listed below (verified amount).		
Emission reductions: [t CO _{2e}]	Total verified amount	As per draft MR:	As per PDD:
	161,419	161,419 tCO _{2e}	162,647 tCO _{2e} /a
		ER achieved up to 2012-12-31	ER achieved from 2013-01-01
		127,686 tCO _{2e}	33,733 tCO _{2e}
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Abbreviations:

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CMR	Carbon Monitoring Report
CO₂	Carbon dioxide
CO_{2eq}	Carbon dioxide equivalent
DVerR	Draft Verification Report
ECPG	East China Power Grid
EIA	Environmental Impact Assessment
EPB	Environmental Protection Bureau
ER	Emission Reduction
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse gas(es)
GS	Gold Standard
GSP	Gold Standard Passport
GS-TAC	Gold Standard Technical Advisory Committee
GSTK	Gold Standard Toolkit
IPCC	Intergovernmental Panel on Climate Change
LSC	Local Stakeholder Consultation
LSCR	Local Stakeholder Consultation Report
MDG	Millennium Development Goals
MP	Monitoring Plan
MR	Monitoring Report
NDRC	National Development and Reform Commission of the People's Republic of
NGO	Non Government Organisation
PA	Project Activity
PDD	Project Design Document

PP	Project Participant
QA/QC	Quality Assurance / Quality Control
SD	Sustainable Development
SFR	Stakeholder Feedback Round
SMR	Sustainability Monitoring Report
UNFCCC	United Nations Framework Convention on Climate Change
VVS	Validation and Verification Standard
XLS	Emission Reduction Calculation Spread Sheet

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1. INTRODUCTION

Everbright Alternative Energy (Dangshan) Limited has commissioned the TÜV NORD JI/CDM Certification Program (CP) to carry out the GS CER 1st periodic verification of the project

“Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited”

with regard to the relevant requirements for Gold Standard project activities. The verifiers have reviewed the implementation of the monitoring plan (MP) in the registered Gold Standard project.

GHG data for the monitoring period was verified in detailed manner applying the set of requirements, audit practices and principles as required under the Gold Standard Requirements version 2.2, the Gold Standard Toolkit version 2.2 and respective Annexes, Validation and Verification Standard ^{/VVS/} of the UNFCCC.

This report summarizes the findings and conclusions of this GS CER 1st periodic verification of the above mentioned Gold Standard registered project activity.

1.1. Objective

The objective of the verification is the review and ex-post determination by an independent entity of the GHG emission reductions. It includes the verification of the:

- implementation and operation of the project activity as given in the PDD,
- compliance with applied approved methodology and the provisions of the monitoring plan,
- data given in the monitoring report by checking the monitoring records, the emissions reduction calculation and supporting evidence,
- accuracy of the monitoring equipment,
- quality of evidence,
- significance of reporting risks and risks of material misstatements.

1.2. Scope

The verification of this registered project is based on the validated GS project design document ^{/PDD/}, the monitoring report ^{/MR/}, emission reduction calculation spread sheet ^{/XLS/}, supporting documents made available to the verifier and information collected through performing interviews and during the on-site assessment. Furthermore publicly available information was considered as far as available and required.

The verification is carried out on the basis of the following requirements, applicable for this project activity:

- Article 12 of the Kyoto Protocol ^{/KP/},

- guidelines for the implementation of Article 12 of the Kyoto Protocol as presented in the Marrakech Accords under decision 3/CMP.1^{/MA/}, and subsequent decisions made by the Executive Board and COP/MOP,
- other relevant rules, including the host country legislation,
- CDM Validation and Verification Standard^{/VVS/},
- monitoring plan as given in the registered PDD^{/PDD/},
- Approved CDM Methodology.
- Gold Standard Requirements version 2.2^{/GSR/},
- Gold Standard Toolkit version 2.2^{/GSTK/}.

2. GHG PROJECT DESCRIPTION

2.1. Technical Project Description

This Project is a newly built large scale Biomass power generation project. The total installed capacity of the project is 30MW which consists of one unit of biomass combustion boiler (capacity of 130t/h) with high temperature and high pressure, one 30MW steam turbine and generator. According to the revised PDD, the project is to utilize branches and wood scrap to generate electricity and is expected to utilize 356,850 tonnes of biomass residues (with dry basis of 210,185 tons) annually in total. The total installed capacity of the project is 30MW and is estimated to generate 234,000 MWh per year.

The project is intended to reduce CO₂ emissions to displace the electricity generated by mostly fossil fuel based power plants connected to the ECPG and CH₄ emissions to displace the biomass residues are dumped or left to decay under aerobic conditions or burned in an uncontrolled manner. As estimated in the PDD 217,620MWh electricity will be supplied to ECPG and 356,850 tonnes of biomass residues (with dry basis of 210,185 tons) will be combusted, thus totally 162,647 tCO₂ emission reductions will be acquired per year.

The main equipment, e.g. the biomass boiler, turbine and generator, are provided by domestic manufactures that are well-known in the Chinese equipment production market.

The key parameters of the project are given in Table 2-1:

Table 2-1: Technical data of the project activity

Parameter	Unit	Value
Biomass Boiler		
Model	-	High temperature and high pressure vibrating stoker
Quantity	-	1
Steam flow rate	t/h	130
Steam pressure outlet	MPa	9.2
Steam temperature outlet	°C	540
Water temperature	°C	210
Designed boiler efficiency	%	89
Lifetime	years	20
Manufacturer	-	Dragon Power Clean Tech Company Limited
Condensing Steam Turbine		
Type	-	N30-8.83
Quantity	-	1
Rated Power	MW	30

Parameter	Unit	Value
Steam Flow Temperature	°C	535
Steam Flow Pressure	MPa	8.83
Steam Flow Quantity	t/h	114
RPM	r/min	3,000
Lifetime	years	20
Manufacturer	-	Qingdao Jieneng Steam Turbine Group Co., Ltd
Generator		
Type	-	QFW-30-2
Power	MW	30
Voltage	kV	10.5
Frequency	Hz	50
Lifetime	years	20
Manufacturer	-	Jinan Power Generation Equipment Plant

The project was fully put into operational on 2011-09-22. The electricity generated by the project is transmitted to the East China Power Grid (ECPG) via Anhui Province Power Grid.

During the GS CER 1st periodic verification, covering the period 2012-04-01 to 2013-03-31, it was verified that the technical parameters of the equipments used under the project activity were identical as described in the registered PDD. And the project complies with all relevant statutory requirements.

2.2. Project Location

The details of the project location are given in Table 2-2:

Table 2-2: Project Location

No.	Project Location
Host Country	P.R.China
Region:	Anhui Province
Project location address:	Dangshan County, Suzhou City
Latitude:	34°24'56"N
Longitude:	116°24'56"E

2.3. Project Verification History

Essential events since the registration of the project are presented in the following Table 2-3.

Table 2-3: Status of previous Monitoring Periods

#	Item	Time	Status
1	Date of CDM registration	2011-08-08	-
2	Date of GS registration	2014-01-15	-
3	Start of GS crediting period	2012-04-01	-
4	1 st periodic GS CER verification	2012-04-01 to 2013-03-31	On-going

An overview of all Post Registration Changes is given in the following table.

Table 2-4: Overview Post Registration Changes

#	Applicable from – to / as of	MP	Type of post registration change ¹⁾	Description	Status ²⁾ / Date
1	N/A	-	TDfrMP	N/A	N/A
2	N/A	-	TDfMM	N/A	N/A
3	N/A	-	CrPDD	N/A	N/A
4	N/A	-	PCfrMP	N/A	N/A
5	N/A	-	PCfMM	N/A	N/A
6	N/A	-	CoPD	N/A	N/A

- ¹⁾ TDfrMP : Temporary deviation from registered monitoring plan
TDfMM : Temporary deviation from the monitoring methodology
CrPDD : Corrections to the registered PDD
PCfrMP : Permanent changes from registered Monitoring Plan
PCfMM : Permanent changes from Monitoring Methodology
CoPD : Changes to the project design of a registered project activity
- ²⁾ Approval (by EB) or Acceptance (by DOE)

3. METHODOLOGY AND VERIFICATION SEQUENCE

3.1. Verification Steps

The verification consisted of the following steps:

- Contract review
- Appointment of team members and technical reviewers
- Publication of the monitoring report
- A desk review of the Monitoring Report^{/MR/} submitted by the client and additional supporting documents with the use of customised verification protocol^{/CPM/} according to the Gold Standard Requirements version 2.2, the Gold Standard Toolkit version 2.2 and respective Annexes, Validation and Verification Standard^{/VVS/},
- Verification planning,
- Publication of Verification Workplan,
- On-Site assessment,
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Draft verification reporting
- Resolution of corrective actions (if any)
- Final verification reporting
- Technical review
- Final approval of the verification.

3.2. Contract review

To assure that

- the project falls within the scopes for which accreditation is held,
- the necessary competences to carry out the verification can be provided,
- Impartiality issues are clear and in line with the GS accreditation requirements

a contract review was carried out before the contract was signed.

3.3. Appointment of team members and technical reviewers

On the basis of a competence analysis and individual availabilities a verification team, consisting of one team leader and three team members, were appointed.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the Table 3-1 below.

Table 3-1: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Verification competence ⁵⁾	Host country Competence	On-site visit
☐ Mr. ☒ MS.	ZHAO, Xue Jiao	TN China	TL	LA	☒	1.2	☒	☒	☒
☒ Mr. ☐ MS.	WANG, Wei	TN China	TM ^{A)}	A	☒	1.1	☒	☒	☒
☒ Mr. ☐ MS.	-	TÜV NORD Cert GmbH	TR ^{B)}	-	☒	-	☒	☐	-
☐ Mr. ☒ MS.	Alexandra Nebel	TÜV NORD Cert GmbH	TR/ FA ^{B)}	SA	☒	-	☒	☐	-

¹⁾ TL: Team Leader; TM: Team Member, TR: Technical review; OT: Observer-Team, OR: Observer-TR; FA: Final approval

²⁾ GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

³⁾ GHG auditor status (at least Assessor)

⁴⁾ As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

⁵⁾ In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

All team members contributed to the review of documents, the assessment of the project activity and to the preparation of this report under the leadership of the team leader.

Technical experts contributed to the assessment of special aspects of the project activity, e.g. technical or host country aspects.

Statements of competence for the above mentioned involved personnel are enclosed in annex 2 of this report.

3.4. Publication of the Verification Workplan

In accordance with the Gold Standard Requirements version 2.2, the verification workplan has been made publicly available on the dedicated GS website prior to the verification activity commenced.

3.5. Verification Planning

In order to ensure a complete, transparent and timely execution of the verification task the team leader has planned the complete sequence of events necessary to arrive at a substantiated final verification opinion.

Various tools have been established in order to ensure an effective verification planning.

Risk analysis and detailed audit testing planning

For the identification of potential reporting risks and the necessary detailed audit testing procedures for residual risk areas table A-1 is used. The structure and content of this table is given in Table 3-2 below.

Table 3-2: Table A-1; Identification of verification risk areas

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing				
Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
The following potential risks were identified and divided and structured according to the possible areas of occurrence.	The potential risks of raw data generation have been identified in the course of the monitoring system implementation. The following measures were taken in order to minimize the corresponding risks. The following measures are implemented:	Despite the measures implemented in order to reduce the occurrence probability the following residual risks remain and have to be addressed in the course of every verification.	The additional verification testing performed is described. Testing may include: - Sample cross checking of manual transfers of data - Recalculation - Spreadsheet 'walk throughs' to check links and equations - Inspection of calibration and maintenance records for key equipment - Check sampling analysis results Discussions with	Having investigated the residual risks, the conclusions should be noted here. Errors and uncertainties are highlighted.

Table A-1: GHG calculation procedures and management control testing / Detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing performed	Conclusions and Areas Requiring Improvement (including Forward Action Requests)
			<i>process engineers who have detailed knowledge of process uncertainty/error bands.</i>	

The completed table A-1 is enclosed in Annex 1 (table A-1) to this report.

Project specific periodic verification checklist

In order to ensure transparency and consideration of all relevant assessment criteria, a project specific verification protocol has been developed. The protocol shows, in a transparent manner, criteria and requirements, means and results of the verification. The verification protocol serves the following purposes:

- It organises, details and clarifies the requirements a GS project is expected to meet for verification
- It ensures a transparent verification process where the verifying DOE documents how a particular requirement has been proved and the result of the verification.

The basic structure of this project specific verification protocol for the periodic verification is described in Table 3-3.

Table 3-3: Table A-2; Structure of the project specific periodic verification checklist

Table A-2: Periodic verification checklist

Checklist Item	Reference	Verification Team Comments	Draft Conclusion	Final Conclusion
The checklist items in Table A-2 are linked to the various requirements the monitoring of the project should meet. The checklist is organised in various sections as per the requirements of the topic and the individual project activity. It further includes guidance for the verification team.	Gives reference to the information source on which the assessment is based on.	The section is used to elaborate and discuss the checklist item in detail. It includes the assessment of the verification team and how the assessment was carried out. The reporting requirements of the VVS shall be covered in this section.	Assessment based on evidence provided if the criterion is fulfilled (OK), or a CAR, CL or FAR (see below) is raised. The assessment refers to the draft verification stage.	In case of a corrective action or a clarification the final assessment at the final verification stage is given.

The periodic verification checklist (verification protocol) is the backbone of the complete verification starting from the desk review until final assessment. Detailed assessments and findings are discussed within this checklist and not necessarily repeated in the main text of this report.

The completed verification protocol is enclosed in Annex 1 (table A-2) to this report.

3.6. Desk review

During the desk review all documents initially provided by the client and publicly available documents relevant for the verification were reviewed. The main documents are listed below:

- the last revision of the GS Passport and GS PDD including the monitoring plan^{/GSP/&/PDD/},
- the last revision of the GS validation report^{/VAL/},
- the monitoring report, including the claimed emission reductions for the project^{/MR/},
- the emission reduction calculation spreadsheet^{/XLS/}.

Other supporting documents, such as publicly available information on the UNFCCC website, GS website and background information were also reviewed.

3.7. On-site assessment

As most essential part of the verification exercise it is indispensable to carry out an inspection on site in order to verify that the project is implemented in accordance with the applicable criteria. Furthermore the on-site assessment is necessary to check the monitoring data with respect to accuracy to ensure the calculation of emission reductions. The main tasks covered during the site visit include, but are not limited to:

- The on-site assessment included an investigation of whether all relevant equipment is installed and works as anticipated.
- The operating staff was interviewed and observed in order to check the risks of inappropriate operation and data collection procedures.
- Information processes for generating, aggregating and reporting the selected monitored parameters were reviewed.
- The duly calibration of all metering equipment was checked.
- The monitoring processes, routines and documentations were audited to check their proper application.
- The monitoring data were checked completely.
- The data aggregation trails were checked via spot sample down to the level of the meter recordings.

Before and during the on-site visit the verification team performed interviews with the project participants to confirm selected information and to resolve issues identified in the document review.

Representatives of Everbright Alternative Energy (Dangshan) Limited and Innovative Carbon Investment Corporation (project consultant) including the operational staff of the plant were interviewed. The main topics of the interviews are summarised in Table 3-4.

Table 3-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
1. Projects & Operations Personnel/IM01/ 2. Project Consultant: Innovative Carbon Investment Corporation/IM02/ 3. Stakeholders/IM03/	- General aspects of the project - Technical equipment and operation - Changes since validation / previous verification - Monitoring and measurement equipment - Remaining issues from validation/ previous verification - Calibration procedures - Quality management system - Involved personnel and responsibilities - Training and practice of the operational personnel - Implementation of the monitoring plan - Monitoring data management - Data uncertainty and residual risks - GHG emission reduction calculation - Procedural aspects of the verification - Maintenance - Environmental aspects

The list of interviewees is included in chapter 7.4.

3.8. Draft verification reporting

On the basis of the desk review, the on-site visit, follow-up interviews and further background investigation the verification protocol is completed. This protocol together with a general project and procedural description of the verification and a detailed list of the verification findings form the draft verification report. This report is sent to the client for resolution of raised CARs, CLs and FARs.

3.9. Resolution of CARs, CLs and FARs

Nonconformities raised during the verification can either be seen as a non-fulfilment of criteria ensuring the proper implementation of a project or where a risk to deliver high quality emission reductions is identified.

Corrective Action Requests (CARs) are issued, if:

- Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
- Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;
- Issues identified in a FAR during validation or previous verifications requiring actions by the project participants to be verified during verification have not been resolved.

The verification team uses the term Clarification Request (CL), which is issued if:

- information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

Forward Action Requests (FAR) indicate essential risks for further periodic verifications. Forward Action Requests are issued, if:

- the monitoring and reporting require attention and / or adjustment for the next verification period.

For a detailed list of all CARs, CLs and FARs raised in the course of the verification pl. refer to chapter 4.

3.10. Final reporting

Upon successful closure of all raised CARs and CLs the final verification report including a positive verification opinion can be issued. In case not all essential issues could finally be resolved, a final report including a negative verification opinion is issued.

The final report summarizes the final assessments w.r.t. all applicable criteria.

3.11. Technical review

Before submission of the final verification report a technical review of the whole verification procedure is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the verification opinion and the topic specific assessments as prepared by the verification team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

3.12. Final approval

After successful technical review an overall (esp. procedural) assessment of the complete verification will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

After this step the request for issuance can be started.

4. VERIFICATION FINDINGS

In the following paragraphs the findings from the desk review of the monitoring report^{/CMR/}, the calculation spreadsheet^{/XLS/}, GS PDD^{/PDD/}, the Validation Report^{/VAL/} and other supporting documents, as well as from the on-site assessment and the interviews are summarised.

The summary of CAR, CL and FAR issued are shown in Table 4-1 and Table 4-2:

Table 4-1: Summary of CAR, CL and FAR of CMR

Verification topic	No. of CAR	No. of CL	No. of FAR
A – Description of project activity	0	0	0
B – Implementation of project activity	0	0	0
C – Description of monitoring system	0	0	0
D – Data and parameters	0	0	0
E - Calculation of Emission Reductions	0	0	0
SUM	0	0	0

There are no CARs, CLs and FARs to CMR. For an in depth evaluation of all verification items it should be referred to the verification protocols (see Annex).

Table 4-2: Summary of CAR, CL and FAR of SMR

Verification topic	No. of CAR	No. of CL	No. of FAR
A – Relevant dates for the project	0	0	0
B – Sustainable Indicators	4	0	0
C –Monitoring of Parameters	0	0	0
SUM	4	0	0

The following tables include all raised CARs, CLs and FARs and the assessments of the same by the verification team.

Finding	B1		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	In the monitoring section, no actual data and results have been given for the parameters no. 4 (Air quality) reference values and actual values, 5 (Water quality) reference values and actual values, 6 (soil condition) what is the target in trees, m ² or ha), 7 (other pollutants) what kind of pollutants, what has been done to avoid them.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	The actual data for parameter no. 4 (Air quality) and parameter no.5 (Water quality) has been added in the revised sustainability monitoring report (SMR). For parameter no. 6 (soil condition), the mitigation measure of re-plantation has been monitored, and the target in trees is 20,000 bushes and 300 fruit trees, about 20,000 m ² . For parameter no. 7 (other pollutants), it includes noise, and many mitigation measures have been taken to avoid it, like using the covers/silencers for machinery, using machinery with lower noise levels and so on, which is consistent with the technical documents of the equipment used in the project.		
	☒ Changes in SMR	Section(s): B	New version No.: 02
	☐ Changes in XLS	Worksheet(s):	New version No.:
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The revised SMR has been checked and the relevant contents have been confirmed via checking the relevant evidences. Refer to the section 5.7 SD indicators in this report for detail assessment. Hence, the CAR B1 is closed out.		
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed		

Finding	B2		
Classification	☒ CAR	☐ CL	☐ FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	For parameter employment (no. 3) it is not clear what the salary range is. It just says that the average salary can be 60,000 RMB, but it does not give real figures and how many of the employees really get those 60,000 RMB.		
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	In the revised SMR, it states that there are 100 employees in the project and the average salary of the employees is about 60,000RMB/year with the salary range from 50,400RMB to 120,080RMB.		
	☒ Changes in SMR	Section(s): B	New version No.: 02
	☐ Changes in XLS	Worksheet(s):	New version No.:

Finding	B2
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The real figures of average salary of the employees for each month during the monitoring period have been checked by the verification team, which are confirmed as consistent with the payroll of each month during the monitoring period^{/RSP/}. Refer to the section 5.7 SD indicators in this report for detail assessment. Hence, the CAR B2 is closed out.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	B3
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	For parameter 6 (soil condition), it is not clear how the picture in Annex II confirms improvement of soil conditions.
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	Annex II shows that the re-plantation has been conducted and maintained in the places affected by the project, and the land used to build the project was industrial land, which was not the prime cropland, so there wasn't much vegetation, which is stated in the registered GS passport. Therefore, the picture confirms the re-plantation has been done for the project and the project has no negative influence on the soil conditions. And additional evidences, the Environmental Monitoring Report for Examination and Acceptance of Environmental Protection issued by Anhui Environmental Monitoring Center in 01/2012 and the Greening maintenance and management contract in 12/2012 has been described in the revised SMR to state the situation of the re-plantation in the project.
	☒ Changes in SMR Section(s): B New version No.: 02 ☐ Changes in XLS Worksheet(s): New version No.:

Finding	B3
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The revised SMR has been checked, the description has been confirmed through checking the relevant evidence. Via checking the Environmental Monitoring Report for Examination and Acceptance of Environmental Protection issued by Anhui Environmental Monitoring Center in Jan. 2012^{/EMR/}, it is confirmed that the re-plantation area is about 20,000m², which is 13.4% of the land used in the project. By means of checking the Land Use Certificate issued by Dangshan County Land Resources Bureau^{/LUC/}, it is confirmed that the land used in the project was industrial land with area of 149,485.30 m². Through checking the Greening maintenance and management contract signed in Dec. 2012^{/GMMC/}, the re-plantation area of 20,000m² has been maintained during the operation of the project, and the main types of vegetation are 20,000 bushes and 300 fruit trees. Refer to the section 5.7 SD indicators in this report for detail assessment. Hence, the CAR B3 is closed out.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

Finding	B4
Classification	☒ CAR ☐ CL ☐ FAR
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	Nearly all evidences refer to the same source from EAEP dated 2012-01-31. As this has been concluded before the MP started, is there any evidence for each of the parameter from within the MP?
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details. In case the MR is changed as part of the CA, the PP is requested to indicate the revised sections as well as the new version No.</i>	There are evidences within the MP for the parameters. For example, for parameter no. 4 (Air quality), there are Air Quality Monitoring monthly reports, Environmental Monitoring Reports on air quality by Suzhou Environmental Monitoring Center. For parameter no.5 (Water quality), there is Environmental Monitoring Report on waste water quality by Suzhou Environmental Monitoring Center issued on 15/04/2013. For parameter no. 6 (soil condition), refer to the reply to the CAR B3. For parameter no. 7(Other pollutants), there is Environmental Monitoring Report on noise issued by Suzhou Environmental Monitoring Center issued on 16/01/2013 has been provided.
	☒ Changes in SMR Section(s): B New version No.: 02
	☐ Changes in XLS Worksheet(s): New version No.:



Finding	B4
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Additional evidences have been added in the SMR and FVR, the EAEP is the comprehensive evidence for all the monitoring parameters, while for each parameter, there is relevant up to date evidence has been checked. Refer to the section 5.7 SD indicators in this report for detail assessment. Hence, the CAR B4 is closed out.
Conclusion <i>Tick the appropriate checkbox</i>	☐ To be checked during the next periodic verification ☐ Additional action should be taken (finding remains open) ☒ The finding is closed

5. SUMMARY OF VERIFICATION ASSESSMENTS

The following paragraphs include the summary of the final verification assessments after all CARs and CLs are closed out. For details of the assessments pl. refer to the discussion of the verification findings in chapter 4 and the verification protocol (Annex 1).

5.1. Involved Parties and Project Participants

The following parties to the Kyoto Protocol and project participants are involved in this project activity.

Table 5-1: Project Parties and project participants

Characteristic	Party	Project Participant
Non-Annex 1	P.R.China	Everbright Alternative Energy (Dangshan) Limited
Annex 1	United Kingdom of Great Britain and Northern Ireland	Macquarie Bank Limited

5.2. Implementation of the project

The project exported electricity to the Anhui Province Power Grid, which is a part of East China Power Grid (ECPG). The recorded generation data^{/LOG/}, meter readings^{/MRS/}, meter calibration certificates^{/CAL/}, monthly electricity sale invoices^{/EBS/}, Electricity balance sheets^{/EBS/}, and plant operation records^{/O&M/} were verified by the verification team during the on-site visit.

The project was implemented and commissioned on 2011-09-22. The operation dates have been indicated in the MR and are assessed as reliable by the verification team^{/LOG/}. The electricity generated by the project is transferred to the Longhai substation and subsequently to East China Power Grid. ECPG contains of the Anhui Power Grid, Shanghai Power Grid, Fujian Power Grid, Jiangsu Power Grid and Zhejiang Power Grid.

The biomass residues utilized in project are branches and wood scrap, which are collected from nearby farm land and wood panel boards production plants within 50 km to the proposed project site. During the biomass processing station and project site visit, it is confirmed, in line with related methodology², that four categories of biomass residues are used for the project activity^{/IM01/&/IM03/} as indicated in the

² As per methodology ACM0018 version 2.0.0 a category is defined by its type, its source and its fate in the absence of the project activity.

registered PDD: pear, peach and apple branches as well as wood scrap. By means of site observation and the daily biomass balance sheet/reports check^{/BRBS/}, it is confirmed that there are three categories of branches, pear, peach and apple branches. Each branch category is monitored separately, while the biomass type wood scrap is monitored by two streams due to the size of the wood scrap. Larger wood scrap residues have to be further processed onsite the power plant before feeding into the hopper for combustion whereas the smaller wood scrap residues can be directly fed into the hopper. Therefore the two wood scrap streams have different prices and hence the monitoring is divided to two streams by the project owner.

The biomass residues are physically pre-treated in 26 biomass processing stations first and then transported to the power plant by trucks. The weight of each truck is measured by an electronic truck scale 1# when the truck enters the plant, then the truck drops the biomass residue to the determined stock ground according to the type and category of the biomass residue. Each type and category of biomass residue is stocked separately, no mix of the category occurs which is confirmed by means of on-site investigation^{/IM01/} and checking the monitoring manual^{/MM/}. After unloading the tare weight of the empty truck is measured by the electronic truck scale 2#. The net truck load is calculated as the difference of the two measurements from electronic truck scale 1# (gross weight) and 2# (tare weight).

Finally, the biomass is fed into the boiler and combusted to generate electrical power. No waste water originating from the treatment of the biomass was detected during the on-site investigation.

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

All necessary monitoring instruments are installed. The measuring devices are well known and state-of-the-art. All required instruments including stand by and operating procedures for the same have been implemented in an appropriate manner.

Electricity metering

The Gross quantity of electricity generated by the power plant $EG_{PJ,gross,y}$ is monitored by one sealed meter M1. The total auxiliary electricity consumption required for the operation of the power plants at the project site $EG_{PJ,aux,y}$ is monitored by one sealed meter M2. In addition, two back-up meters M3 and M4 measuring the electricity supplied to the grid are installed at the outlet point from the project site at the connection with the substation transmission line.

Each biomass processing station has its own electricity metering for measuring the electricity used by the entire processing station including the physical pre-treatment of the biomass residues $EG_{off-site,y}$, these meters are installed and maintained by the grid company^{/ECO/}.

Neither mistakes nor malfunction on Meter M1 and M2 and all other electricity meters have been observed during this monitoring period. Meters M1 to M4 are calibrated yearly by qualified third party entity^{/CAL&CMA/}. The DOE has checked all related

calibration certificates and can confirm that the calibration of each meter is valid for the entire 1st monitoring period.

Please refer to table 5-1a for detailed meter information

Table 5-1 a: Meters information

	Meter M1	Meter M2	Meter M3	Meter M4
Type	A1350C	DTSD2818-BR	A1800	A1800
Serial No.	201000080001	4131390822	09963588	10128471
Manufacturer	Elster	Guodian Nanjing Automation Co., Ltd.	Elster	Elster
Accuracy	0.5s	0.5	0.2s	0.2s
Calibration date	18/08/2011 16/08/2012	09/08/2011 07/08/2012	21/04/2011 19/04/2012	21/04/2011 19/04/2012
Validity of last calibration	15/08/2013	06/08/2013	18/04/2013	18/04/2013

Measuring the Biomass Quantity

An electronic belt scale is used to measure the biomass residues quantities of each category combusted in the project activity $BR_{PJ,n,y}$.

Electronic truck scale 1# and 2# are used to measure the quantity of biomass residues that has been transported to the project site $BR_{TR,y}$.

An electronic balance and dry cabinet 1# and 2# are used to measure the moisture content of the biomass residues.

The moisture content of biomass combusted: the lab assistant takes a sample from the final storage daily for each category of biomass residue after a predefined method, analyzes the sample and records the value in a daily report.

The NCV of each category of biomass is analyzed by an independent third party laboratory in accordance with national standard NY/T12-1985 for each category of the biomass residue at least every six months, taking at least three samples for each measurement.

Please refer to table 5-1 b for detailed measure equipment information

Table 5-1b: Measure equipment information

	Electronic Belt Scale	Electronic Truck scale 1#	Electronic Truck scale 2#
Type	ICS-1400	SCS-2CS-100	SCS-12CS-50
Serial No.	PD100471	Q1893-6LM	QOS750-3421
Manufacturer	Jiangsu Saimo Group Co., Ltd.	METTLER TOLEDO (Changzhou) Weighing-appliance System Co.,	METTLER TOLEDO (Changzhou) Weighing-appliance System Co.,

		Ltd.	Ltd.
Accuracy	0.5	Class III	Class III
Calibration date	28/08/2011 27/08/2012	01/03/2012 31/08/2012 01/03/2013	01/03/2012 31/08/2012 01/03/2013
Validity of last calibration	26/08/2013	31/08/2013	31/08/2013
	Electronic balance	Dry Cabinet 1#	Dry Cabinet 2#
Type	TP-5200	FT101A()P-2	FT101A()P-4
Serial No.	92902	1009888	10111097
Manufacturer	Xiangyi Balance Equipment Co., Ltd.	Zhenjiang City Fengtai Laboratory sample preparation Co., Ltd.	Zhenjiang City Fengtai Laboratory sample preparation Co., Ltd.
Accuracy	0.001g	1°C ³	1°C
Calibration date	05/08/2011 04/08/2012	05/08/2011 04/08/2012	05/08/2011 04/08/2012
Validity of last calibration	03/08/2013	03/08/2013	03/08/2013

Measuring the fossil fuel

Two flow meters are used to measure the quantity of fossil fuel combusted in the power plant $FF_{projectplant,i,y}$, if any.

A refueling machine is used to measure the quantity of fossil fuel combusted at the project site for other purposes that are attributable to the project activity $FF_{projectsite,i,y}$.

Please refer to table 5-1c for detailed measure equipment information

Table 5-1c: Measure equipment information

	Flow Meter 1#	Flow Meter 2#	Refueling Machine
Type	LC-12/A	LC-12/A	CS46J2222G
Serial No.	11.031	11.032	WCFN800055
Manufacturer	Anhui Province Zhongyuan Appearance Co.,Ltd.	Anhui Province Zhongyuan Appearance Co.,Ltd.	Henan Zhengxing Technology Co., Ltd.
Accuracy	0.5 ⁴	0.5	0.3% ⁵
Calibration date	10/08/2011	10/08/2011	04/02/2012

³ The meaning of the accuracy class 1°C is that the temperature indication range is 1°C which is confirmed by means of checking the calibration report of the Dry Cabinet^{/CAL/}.

⁴ The number 0.5 is the accuracy class, and the corresponding maximum permissible error is $\pm 0.5\%$, JIG667-2010 Liquid Positive Displacement Flowmeter is verified to confirm the same.

⁵ The meaning of the accuracy class 0.3% is that the difference per hectoliter is $\pm 0.3\%$, the JIG443-98 Verification regulation of fuel dispenser is verified to confirm the same.

	09/08/2012	09/08/2012	02/06/2012 30/09/2012 28/01/2013
Validity of last calibration	08/08/2013	08/08/2013	27/05/2013

In summary, all necessary monitoring instruments are installed. The measuring devices are well known and state of the art. All required instruments including stand by and operating procedures have been implemented in an appropriate manner.

Through interviews with operation personnel^{/IM01/}, checking the operation log^{/LOG/} and maintenance records^{/O&M/}, it is observed that only usual maintenances occurred during this monitoring period and the related information of the downtimes has been stated in the MR.

5.3. Project history

The project was registered as CDM project on 2011-08-08 and registered as GS project on 2013-12-20. According to Para V.a.2.3 of Gold Standard Requirements Version 2.2, "Project activities proceeding under the retroactive project cycle, may be eligible for retroactive crediting for realized emission reductions prior to Gold Standard registration of a maximum period of two years", the project is a retroactive project, hence, the PP choose the start of the Gold Standard crediting period as 2012-04-01.

This is the GS CER 1st periodic verification. During the validation the validating DOE did not raise issues that could not be closed or resolved during the validation stage^{/VAL/}. No such issues were identified for this project.

5.4. Post registration changes

No post registration changes applicable for this monitoring period have been observed during the monitoring period.

5.5. Compliance with the monitoring plan

The monitoring system and all applied procedures are completely in compliance to the registered monitoring plan^{/PDD/}.

5.6. Compliance with the monitoring methodology

The monitoring system is in compliance with the applied monitoring methodology (ACM0018 version 02.0.0).

5.7. Monitoring parameters

During the verification all relevant monitoring parameters (as listed in chapter 7.1 of the PDD and Section G of the passport) have been verified with regard to the appropriateness of the applied measurement / determination method, the correctness of the values applied for ER calculation, the accuracy, and applied QA/QC measures. The results as well as the verification procedure are described parameter-wise in the project specific verification checklist.

Parameters for Emission Reduction

The relevant parameters verified during the monitoring period are:

For Power

$EG_{PJ, gross, y}$ & $EG_{PJ, aux, y}$

$EG_{off-site, y}$

Where

$EG_{PJ, gross, y}$ Gross quantity of electricity generated in all power plants which are located at the project site and included in the project boundary (MWh)

$EG_{PJ, aux, y}$ All electricity required on-site for the operation of equipment related to the preparation, processing, storage and transport of biomass residues (e.g. for mechanical treatment of the biomass, conveyor belts, driers, pelletization, shredding, briquetting processes, etc.) and electricity required for the operation of all power plants which are located at the project site and included in the project boundary (e.g. for pumps, fans, cooling towers, instrumentation and control, etc.)(MWh)

$EG_{offsite, y}$ Quantity of electricity required for the operation of equipment related to the off-site preparation, processing, storage and transportation of biomass residues (e.g. for mechanical treatment of the biomass, conveyor belts, driers, pelletization, shredding, briquetting processes, etc.)

For Biomass

$BR_{PJ, n, y}$ & $BR_{n, B1/B3, y}$

$BR_{TR, y}$

Where

$BR_{PJ, n, y}$ Quantity of biomass residues of category n used in power plants which are located at the project site and included in the project boundary (tonnes on dry-basis/yr)

$BR_{n,B1/B3,y}$ Amount of biomass residues category n used in the project plant(s) included in the project boundary for which B1 or B3 has been identified as the most plausible baseline scenario (tonnes on dry-basis)

$FR_{f,m}$ Total mass of freight transported in freight transportation activity f in monitoring period m (tonnes on wet basis)

Biomass residues categories and quantities in the project activity

For biomass residues categories for which scenario B1:, B2: or B3: is deemed a plausible baseline alternative, project participants shall demonstrate that this is a realistic and credible alternative scenario

For fossil fuel

$FF_{projectplant,i,y}$ & $FF_{projectsite,i,y}$

Where

$FF_{projectplant,i,y}$ Quantity of fossil fuel type i combusted in the biomass residue fired power plant (tons)

$FF_{projectsite,i,y}$ Quantity of fossil fuel type i combusted at the project site for other purposes that are attributable to the project activity (tons)

For other monitored parameters

$NCV_{n,y}$

$NCV_{n,y} \cdot EF_{BR,n,y}$

Moisture content of the biomass residues type k

$D_{f,m}$

$NCV_{i,y}$

$EF_{CH4,BR}$

$COEF_i$

Where

$NCV_{n,y}$ Net calorific value of the biomass residues category n in year y (GJ/tonnes on dry basis)

$NCV_{n,y} \cdot EF_{BR,n,y}$ IPCC default value(tCH₄/tonnes)

$D_{f,m}$ Return trip distance between the origin and destination of freight transportation activity f in monitoring period m ;

$NCV_{i,y}$ Net calorific value of fossil fuel type i (GJ / ton)

$EF_{CH4,BR}$ CH₄ emission factor for the combustion of biomass residues in the project plant (tCH₄/GJ)

$COEF_i$ CO₂ emission factor for fossil fuel type i (tCO₂e/GJ)

Parameters not to be monitored but fixed ex-ante:

The following parameters are fixed at validation stage and therefore not to be monitored:

GWP_{CH_4} : Global warming potential for CH₄. Value applied 21 tCO₂e/tCH₄ (before 2013-01-01) and 25 tCO₂e/tCH₄ (after 2013-01-01) for this monitoring period as per registered PDD and EB 69 Annex 3^{/EB69-Annex3/}.

$EF_{Grid,CM,y}$: Combined Margin Emission Factor of ECPG. Value applied 0.7566 tCO₂e/MWh. The value is identical with the registered PDD and has been crosschecked with Chinese DNA publication and is therefore justified^{/dna-HP/}.

DOE confirms that the ex-ante fixed values have been applied correctly.

All records of power generation, power used on-site and off-site, biomass used, biomass transported, balance sheets, the results of calibration, and the measurement of other parameters will be collected in a central place by the project owner. Data records will be archived for a period of 2 years after the crediting period to which the records pertain.

The results as well as the verification procedure are described parameter-wise in the project verification checklist. Please refer DOE Assessment for details in Annex 1.

SD Indicators

According to the requirements of the Gold Standard version 2.2 and the registered GS passport, during the monitoring period, there are 10 sustainable development indicators for the project activity.

1. Quality of employment

The operation and maintenance regulations have been established and the trainings have been conducted including knowledge about CDM, the operation of project equipments/computer operations, emergency and safety procedures.

The regulations and training records have been checked^{/O&M/TCR/}. Also, the operation staff had been interviewed during the on-site investigation^{/IM01/}, the relevant descriptions have been confirmed.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

2. Access to affordable and clean energy services

The gross quantity of electricity generated by the project has been recorded through meters readings at 24:00 of the last day every month. The monthly meter reading records have been checked^{/EBS/IMRD/}. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

3. Quantitative employment and income generation

100 full time job positions were employed by the projects company for the operation and maintenance of the project. During this monitoring period, by means of check the record of salary payment and Labor contract^{/RSP/}, it is confirmed that the annual average salary is 60,000 RMB/person with the salary range from 50,400RMB to 120,080RMB. The salary is above the Anhui Province average salary level for town persons of 44,601RMB/year/person in 2012^{/aasl/}. Hence, it is confirmed that salary level of all the staffs is more than the average salary level for town persons in Anhui Province.

The operation staffs have been interviewed^{/IMO1/}. The organization chart is also checked by DOE^{/BL/}. The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

4. Air quality

The mitigation measures including water sprinkler and dust screens are applied to control the expected dust emission during the construction have been checked and examined by the local Environmental Protection Bureau.

The mitigation measures including cyclone filter and bag filter are applied to reduce the emissions of fly ash and particulate matter (PM) during the operation.

During the transportation of biomass residues, solutions including the application of complete close structure for trestles and storage sheds, installation of dust remover at the hopper of boiler, frequent cleaning of the vehicles, transportation in covered-manner, and frequent cleaning of the roads are undertaken.

For construction, the verification team has checked the Examination and Acceptance of Environmental Protection for the Project issued by the Anhui Province Environmental Protection Bureau on 2012-01-31^{/EAEP/}.

For operation, the verification team has checked the Environment Management Plan^{/EMP/} which is completed according to the results of the EIA report and checked the Flue Gas Monitoring Monthly Report during the monitoring period^{/FGMM/}, and confirmed that the emission concentrations of dust, NO_x and SO₂ are continuously monitored at the project site. The range of the emission concentration of dust during the monitoring period is from 31 to 63 mg/m³. The range of the emission concentration of NO_x during the monitoring period is from 176 to 346 mg/m³. The range of the emission concentration of SO₂ during the monitoring period is from 12 to 87 mg/m³. Hence, it is concluded that the value of the emission concentrations of dust, NO_x and SO₂ is lower than the National Emission Standard (Dust 200mg/m³; NO_x 450 mg/m³; SO₂ 800 mg/m³)^{/NES/}.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

5. Water quality and quantity

The mitigation measure i.e. washing wastewater is treated in waste water management system of Dangshan County before discharged has been checked and examined by the Suzhou City Environmental Protection Monitoring Station^{/WWMR/}.

The verification team has checked the Examination and Acceptance of Environmental Protection for the Project issued by the Anhui Province Environmental Protection Bureau on 2012-01-31^{/EAEP/}. Also, the verification team has checked the Environment Management Plan^{/EMP/} which is completed according to the results of the EIA report, furthermore, the verification team has checked the Waste Water Monitoring Report issued by Suzhou Environmental Protection Monitoring Station on 2013-04-15^{/WWMR/} and confirmed that the emission concentrations of COD are continuously monitored, and the value of 73mg/L is lower than the Grade III of the Standard of Comprehensive Discharge of Wastewater of 300mg/L^{/MWS/}.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

6. Soil condition

The mitigation measure i.e. replantation in the affected places is conducted after the completion of the construction work has been checked and examined by the Anhui Province Environmental Protection Bureau.

The verification team has checked the Examination and Acceptance of Environmental Protection for the Project issued by the Anhui Province Environmental Protection Bureau on 2012-01-31^{/EAEP/}.

In addition, via checking the Environmental Monitoring Report for Examination and Acceptance of Environmental Protection issued by Anhui Environmental Monitoring Center in Jan. 2012^{/EMR/}, it is confirmed that the re-plantation area is about 20,000m², which is 13.4% of the land used in the project. By means of checking the Land Use Certificate issued by Dangshan County Land Resources Bureau^{/LUC/}, it is confirmed that the land used in the project was industrial land with area of 149,485.30 m².

Through checking the Greening maintenance and management contract signed in Dec. 2012^{/GMMC/}, the re-plantation area of 20,000m² has been maintained during the operation of the project, and the main types of vegetation are 20,000 bushes and 300 fruit trees.

Furthermore, during the on-site verification and interview with the project owner^{/IMO1/}, it is confirmed that the replantation in the affected places is conducted properly.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

7. Other pollutants

The mitigation measures (i.e. construction and movement of traffic are restricted to daylight hours to avoid any discomfort for the nearby resident, and use equipment with low noise emissions during the construction and operation) have been checked and examined by the local Environmental Protection Bureau.

The verification team has checked the Examination and Acceptance of Environmental Protection for the Project issued by the Anhui Province Environmental Protection Bureau on 2012-01-31^{/EAEP/}. Also, the verification team has checked the Environment Management Plan^{/EMP/} which is completed according to the results of the EIA report, and the Environmental Monitoring Report on noise by Suzhou Environmental Monitoring Center issued on 16/01/2013^{/EMRN/}. It is concluded that the noise monitoring results in the north, south, east and west border of the project are 55.4, 44.2, 45.0 and 51.8 dB(A), which are lower than the Grade II of the Standard of noise at boundary of industrial enterprises (60 dB(A)).
In conclusion, the noise is continuously controlled.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

8. Biomass residues renewability

100% renewable biomass residues are used to generate electricity has been checked by the project owner.

The verification team has checked the record of the type and quantities of biomass residues used in the project^{/BRBS&/LOG/}.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

9. Biomass residues surplus

The quantity of each category of biomass residues available in the region is at least 25% larger than the quantity of biomass residues of that type which is utilized in the region.

The verification team has checked the Biomass Resources Collection Special Report issued by MI First Design & Research Institute Co., Ltd. in Mar. 2013^{/BRCR/}.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

10. Land application

The land used in the project is industrial land.

The verification team has confirmed via on-site investigation and by means of checking the Land Use Certificate issued by Dangshan County Land Resources Bureau^{/LUC/}.

The parameter has been monitored in line with the Gold Standard version 2.2 and the registered GS passport.

5.8. Monitoring report

Two draft monitoring reports CMR&SMR were submitted to the verification team by the project participants.

During the verification, mistakes and needs for clarification were identified. The PP has carried out the requested corrections so that it can be confirmed that the Monitoring report is complete and transparent and in accordance with the registered PDD and GS Passport and other relevant requirements.

5.9. Sampling

5.9.1. Implementation of the sampling plan

No sampling was required to determine the monitored parameters.

5.9.2. Sampling approaches during verification

During the on-site verification, a sampling approach has been used by the verification team to verify the reported values for the monitored parameters of $FR_{f,m}$, $BR_{PJ,y}$ and moisture content of the biomass residues type k as the set of corresponding data could not be checked with reasonable efforts from the original data level to the reporting level and a quantitative or semi-quantitative test was not possible.

The sampling approach is conducted according with “Guidelines for Sampling and Surveys for CDM Project Activities and Programme Activities” (Version 02.0) and the “Standard for Sampling and Surveys for CDM Project Activities and Programme Activities” (version 4.0). As the population is relatively homogeneous with respect to the object of the sampling effort, simple random sampling method is adopted for verification of the parameters.

Sample Size Calculation

According to “Best practices examples focusing on sample size and reliability calculations” (Version 02.0) issued at EB 69 Meeting, the following equation is applied for sample size calculation.

$$n \geq \frac{z^2 \times N \times V}{(N - 1) \times \text{precision}^2 + z^2 \times V}$$

Where:

$$V = \frac{p \times (1 - p)}{p^2}$$

n	Number of elements to be sampled.
N	Total number of elements in the population, (see table below for each of the parameters)
p	Proportion: Set to 0.5 based on the very conservative estimation that 50% of the values checked are found to be incorrect.
z	Constant referring to the level of confidence (for this case 1.645 for 90% as per EB69 Annex 4 §10 for SSC project activities.
precision	Required precision (for this case 10%=0.1 as per EB69 Annex 4 §10 for SSC project activities.).

The following table provides the background information and how many values actually have been checked:

Parameter	Population	Maximum data to be checked according to random sampling	Actual number of data checked
BR _{PJ,y} : daily reports	1,825 ⁶	236	915
FR _{f,m} : weighing notes	21,095	268	Almost 2,000
BR _{TR,y} : daily reports	1,825	236	915
Moisture content of each category of biomass residues combusted: daily reports	1,825	236	915

According to the values above and the conservative estimation of 50% wrong values the maximum number of values to be checked for the population of daily reports of BR_{PJ,y}, FR_{f,m}, moisture content of each category of biomass residues combusted (1825) would be as following:

The details calculation for sample size for this example is:

$$n \geq \frac{1.645^2 \times 1825 \times \frac{0.5 \times (1-0.5)}{0.5^2}}{(1825-1) \times 0.1^2 + 1.645^2 \times \frac{0.5 \times (1-0.5)}{0.5^2}} = 235.77$$

Rounding up, the sample size for verification of these populations is 236.

During the on-site verification, 915 values of 183 days for BR_{PJ,y}, FR_{f,m} and moisture content of each category of biomass residues combusted were checked by the verification team. Hence, more than the required number for the daily reports have been verified. Based on the values from the daily reports, and based on the underlying original data, the verification team calculated the data aggregation completely independent from the calculation provided by the PP.

⁶ During this monitoring period, total days are 365, and the biomass residues category were monitored by 5 streams (wood scrap have two streams), hence, there are five values for 5 streams per daily reports. Then, total values of daily reports are 365*5=1,825.

According to the values above and the conservative estimation of 50% wrong values the maximum number of values to be checked for the population of weighing notes of $FR_{f,m}$ (21,095) would be as following:

The details calculation for sample size for this example is:

$$n \geq \frac{1.645^2 \times 21095 \times \frac{0.5 \times (1-0.5)}{0.5^2}}{(21095-1) \times 0.1^2 + 1.645^2 \times \frac{0.5 \times (1-0.5)}{0.5^2}} = 267.19$$

Rounding up, the sample size for verification of weighing notes is 268.

During the on-site verification, almost 2,000 weighing notes of 30 days were checked by the verification team. Hence, more than the required number of the weighing notes have been verified. Based on the values from the weighing notes, and based on the underlying original data, the verification team calculated the data aggregation completely independent from the calculation provided by the PP.

5.10. ER Calculation

The ER calculation spreadsheet had been provided by PP and has been reproduced by verification team, thus it is confirmed that the ER calculation is overall correct.

The GHG emission reduction is calculated as baseline emission minus project emission and leakage emission.

$$ER_y = BE_y - PE_y - LE_y$$

For the calculation of baseline emissions the ex-ante determined value of baseline parameters, i.e., ECPG Emission Factor is taken into account which is a validated value.

Baseline Emissions:

The formula used for the determination of baseline emissions is consistent with the PDD:

$$BE_y = BE_{EL,y} + BE_{BR,y}$$

Where:

BE_y the baseline emission (tCO₂e)

$BE_{EL,y}$ Baseline emissions due to generation of electricity in year y (tCO₂e)

$BE_{BR,y}$ Baseline emissions due to uncontrolled burning or decay of biomass residues in year y (tCO₂e)

$$BE_{EL,y} = EG_{PJ,y} \times EF_{BL,EL,y}$$

$$EG_{PJ,y} = (EG_{PJ,gross,y} - EG_{PJ,aux,y})$$

Where:

$EG_{PJ,y}$ Net quantity of electricity generated in all power plants which are located at the project site and included in the project boundary in year y (MWh)

$EG_{PJ,gross,y}$ Gross quantity of electricity generated in all power plants which are located at the project site and included in the project boundary in year y (MWh)

$EG_{PJ,aux,y}$ All electricity required on-site for the operation of equipment related to the preparation, processing, storage and transport of biomass residues (e.g. for mechanical treatment of the biomass, conveyor belts, driers, pelletization, shredding, briquetting processes, etc.) and electricity required for the operation of all power plants which are located at the project site and included in the project boundary (e.g. for pumps, fans, cooling towers, instrumentation and control, etc.)(MWh)

$EG_{PJ,gross,y}$ and $EG_{PJ,aux,y}$ is derived from the Electricity Balance sheets^{/EBS/}.

According to ACM0018 and registered PDD, $EF_{BL,EL,y}=EF_{grid,CM,y}$

Hence,

$$\begin{aligned} BE_{EL,y} &= (EG_{PJ,gross,y} - EG_{PJ,aux,y}) \times EF_{grid,CM,y} \\ &= (237,611 \text{ MWh} - 15,776 \text{ MWh}) \times 0.7566 \text{ tCO}_2\text{e/MWh} \\ &= 167,841 \text{ tCO}_2\text{e} \end{aligned}$$

According to ACM0018 and registered PDD, the baseline scenario for biomass of the project is B1 and B3, hence, $BE_{BR,y} = BE_{BR,B1/B3,y}$

$$BE_{BR,B1/B3,y} = GWP_{CH4} \cdot \sum_n BR_{n,B1/B3,y} \cdot NCV_{n,y} \cdot EF_{BR,n,y}$$

Where:

$BE_{BR,B1/B3,y}$ Baseline emissions due to uncontrolled burning or anaerobic decay of biomass residues in year y (tCO₂e)

GWP_{CH4} Global Warming Potential of methane valid for the commitment period (tCO₂/tCH₄), 21 for the 1st commitment period, 25 for the 2nd commitment period

$BR_{n,B1/B3,y}$ Amount of biomass residues category n used in the project plant(s) included in the project boundary in year y for which B1 or B3 has been identified as the most plausible baseline scenario (tonnes on dry-basis)

$NCV_{n,y}$ Net calorific value of the biomass residues category n in year y (GJ/tonnes on dry basis)

$EF_{BR,n,y}$ CH₄ emission factor for uncontrolled burning of the biomass residues category n during the year y (tCH₄/GJ)
 n Categories of biomass residues

$BR_{n,B1/B3,y}$ is derived from the Biomass residue Balance sheet^{/BRBS/}.

According to the registered PDD and methodology, also by means of checking the IPCC publications^{/IPCC/}, it is confirmed that $NCV_k \cdot EF_{burning,CH4,k,y}$ is 0.001971 t CH₄/t biomass should be used.

Hence,

$$BE_{BR,B1/B3,y} = GWP_{CH4} \cdot \sum_n BR_{n,B1/B3,y} \cdot NCV_{n,y} \cdot EF_{BR,n,y}$$

$$= (21 \text{ tCO}_2/\text{tCH}_4 \cdot 169,678.82\text{ton} + 25 \text{ tCO}_2/\text{tCH}_4 \cdot 46,305.32) \cdot 0.001971 \text{ tCH}_4/\text{ton}$$

$$= 9,305 \text{ tCO}_2\text{e}$$

In conclusion, Baseline emission

$$BE_y = BE_{EL,y} + BE_{BR,y} = 167,841 \text{ tCO}_2\text{e} + 9,305 \text{ tCO}_2\text{e} = 177,145 \text{ tCO}_2\text{e}$$

Project Emission

According to the methodology and registered PDD, the project emission of the project is calculated as follow:

$$PE_y = PE_{FF,y} + PE_{EL,y} + PE_{TR,y} + PE_{BR,y} + PE_{WW,CH4,y}$$

Where:

PE_y Project emissions during year y (tCO₂e)
 $PE_{FF,y}$ Emissions during the year y due to fossil fuel consumption (tCO₂)
 $PE_{EL,y}$ Emission during the year y due to electricity consumed off-site for the processing of biomass residues (tCO₂)
 $PE_{TR,y}$ Emissions during the year y due to transport of the biomass residues to the project plant (tCO₂)
 $PE_{BR,y}$ Emissions from the combustion of biomass residues during the year y (tCO₂e)
 $PE_{WW,CH4,y}$ Emissions from wastewater generated from the treatment of biomass residues in year y (tCO₂e)

1. $PE_{FF,y}$

$$PE_{FF,y} = \sum_i (FF_{projectplant,i,y} + FF_{projectsite,i,y}) \cdot NCV_i \cdot COEF_i$$

Where:

$FF_{projectplant,i,y}$	Quantity of fossil fuel type i combusted in the biomass residue fired power plant during the year y (tons per year)
$FF_{projectsite,i,y}$	Quantity of fossil fuel type i combusted at the project site for other purposes that are attributable to the project activity during the year y (tons per year)
NCV_i	Net calorific value of fossil fuel type i (GJ / ton)
$COEF_i$	CO ₂ emission factor for fossil fuel type i (tCO ₂ e/GJ)

Hence, Emissions during the year y due to fossil fuel consumption

$$PE_{FF,y} = \sum_i (FF_{projectplant,i,y} + FF_{projectsite,i,y}) \cdot NCV_i \cdot COEF_i$$

$$= (0+149)\text{ton} \cdot 42.652\text{GJ/ton} \cdot 0.0741\text{tCO}_2\text{e/GJ}$$

$$= 471\text{tCO}_2\text{e}$$

2. $PE_{EL,y}$

According to the methodology and registered PDD,

$$PE_{EL,y} = EG_{offsite,y} \times EF_{PJ,EL,y}$$

Where:

$EG_{offsite,y}$	Quantity of electricity required for the operation of equipment related to the off-site preparation, processing, storage and transportation of biomass residues (e.g. for mechanical treatment of the biomass, conveyor belts, driers, pelletization, shredding, briquetting processes, etc., MWh)
$EF_{PJ,EL,y}$	Emission factor for electricity in year y (tCO ₂ /MWh). As the off-site electricity is from grid, therefore it equals to $EF_{grid,CM,y}$.

Hence, Emission during the year y due to electricity consumed off-site for the processing of biomass residues

$$PE_{EL,y} = EG_{offsite,y} \times EF_{PJ,EL,y}$$

$$= 1,850\text{MWh} \cdot 0.7566\text{tCO}_2\text{e/MWh}$$

$$= 1,400\text{tCO}_2\text{e}$$

3. $PE_{TR,y}$

According to methodology, the latest version of tool "Project and leakage emissions from transportation of freight"(ver01.1.0) and registered PDD,

$$PE_{TR,y} = PE_{TR,m} = \sum D_{f,m} \times FR_{f,m} \times EF_{CO2,f} \times 10^{-6}$$

where:

$PE_{TR,y}$	Project emission from transportation of the biomass residues to the
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	project plant in year y (t CO ₂)
$PE_{TR,m}$	Project emission from transportation of freight monitoring period m (t CO ₂)
$D_{f,m}$	Return trip distance between the origin and destination of freight transportation activity f in monitoring period m (km)
$FR_{f,m}$	Total mass of freight transported in freight transportation activity f in monitoring period m (t)
$EF_{CO_2,f}$	Default CO ₂ emission factor for freight transportation activity f (g CO ₂ /t km)
f	Freight transportation activities conducted in the project activity in monitoring period m

Hence, Emissions during the year y due to transport of the biomass residues to the project plant

$$PE_{TR,y} = PE_{TR,m} = \sum D_{f,m} \times FR_{f,m} \times EF_{CO_2,f} \times 10^{-6}$$

$$= 10,572 \text{ tCO}_2\text{e}$$

4. $PE_{BR,y}$

According to methodology and registered PDD,

$$PE_{BR,y} = GWP_{CH_4} \cdot EF_{CH_4,BR} \cdot \sum_n BR_{PJ,n,y} \cdot NCV_{n,y}$$

Where:

$EF_{CH_4,BR}$	CH ₄ emission factor for the combustion of biomass residues in the project plant (tCH ₄ /GJ)
$BR_{PJ,n,y}$	Quantity of biomass residues of category n used in power plants which are located at the project site and included in the project boundary in year y (tonnes on dry-basis/yr)
$NCV_{n,y}$	Net calorific value of the biomass residues category n in year y (GJ/tonnes on dry-basis)

Hence, Emissions from the combustion of biomass residues during the year y

$$PE_{BR,y} = GWP_{CH_4} \cdot EF_{CH_4,BR} \cdot \sum_n BR_{PJ,n,y} \cdot NCV_{n,y}$$

$$= 3,283 \text{ tCO}_2\text{e}$$

5. $PE_{WW,CH_4,y}$

As per registered PDD project emissions are set to zero as there is no waste water originating from the treatment of biomass. This is again confirmed by onsite visit during this monitoring period.

In conclusion, total project emission

$$\begin{aligned}
 PE_y &= PE_{FF,y} + PE_{EL,y} + PE_{TR,y} + PE_{BR,y} + PE_{WW,CH_4,y} \\
 PE_y &= PE_{FF,y} + PE_{EL,y} + PE_{TR,y} + PE_{BR,y} + 0 \\
 &= 471 \text{ tCO}_2\text{e} + 1,400 \text{ tCO}_2\text{e} + 10,572 \text{ tCO}_2\text{e} + 3,283 \text{ tCO}_2\text{e} \\
 &= 15,726 \text{ tCO}_2\text{e}
 \end{aligned}$$

Leakage:

Leakage is set to zero as per registered PDD.

Besides the Biomass Resources Collection Special Report issued by MI First Design & Research Institute Co., Ltd. in Mar. 2013^{/BRCR/} has been checked which states for each type and category of biomass residue a surplus availability of more than 25%. Hence, application of a leakage value of zero is considered reasonable and plausible and in line with corresponding methodology.

Emission Reduction:

Summary of emission reductions during the monitoring period:

$$\begin{aligned}
 ER_y &= BE_y - PE_y - LE_y \\
 &= BE_y - PE_y - 0 \\
 &= BE_y - PE_y
 \end{aligned}$$

Where:

ER_y	-Emission reductions (t CO ₂ e)
BE_y	-Baseline Emissions (t CO ₂ e)
PE_y	-Project Emissions (t CO ₂ e)
LE_y	-Leakage (t CO ₂ e)

Table 5-3: Emission reduction calculation

Parameters	Emission Reductions		
	Baseline Emissions (BE_y)	Project Emissions (PE_y)	Emission Reductions (ER_y)
Unit	(tCO ₂ e)	(tCO ₂ e)	(tCO ₂ e)
01/04/2012-30/04/2012	15,729	1,818	13,911
01/05/2012-31/05/2012	16,441	1,811	14,630
01/06/2012-30/06/2012	13,618	1,122	12,496
01/07/2012-31/07/2012	16,386	1,597	14,788
01/08/2012-31/08/2012	15,612	1,425	14,187
01/09/2012-30/09/2012	12,521	1,275	11,246
01/10/2012-31/10/2012	16,846	1,092	15,754
01/11/2012-30/11/2012	16,326	1,253	15,073
01/12/2012-31/12/2012	16,637	1,037	15,599
01/01/2013-31/01/2013	13,265	1,157	12,109

01/02/2013-28/02/2013	13,822	935	12,887
01/03/2013-31/03/2013	9,943	1,204	8,738
Total	177,145	15,726	161,419

To re-produce the emission reductions, following main documents/records were verified by the audit team:

- Monthly Electricity Balance Sheet of Meter M1 and M2 including $EG_{PJ,gross,y}$ and $EG_{PJ,aux,y}^{/EBS/}$
- Daily Electricity Balance Sheet of Meter M1 and M2 including $EG_{PJ,gross,y}$ and $EG_{PJ,aux,y}^{/EBS/}$
- Monthly and Daily Electricity Balance Sheet of Meter M3 and M4^{/EBS/}
- Statistic of electricity consumed off-site by each meter located in each biomass processing station^{/ECO/}
- Monthly Biomass Residues Balance Sheet of Electronic Belt scale and Electronic Truck scales including $BR_{PJ,n,y}$ and $FR_{f,m}^{/BRBS/}$
- Daily Biomass Residues Balance Sheet of Electronic Belt scale and Electronic Truck scales including $BR_{PJ,n,y}$ and $FR_{f,m}^{/BRBS/}$
- Meters and other equipments calibration records (covering the monitoring period)^{/CAL/}
- Return trip distance between the origin and destination of freight transportation activity f in monitoring period m ^{/RTD/}
- Quantity of fossil fuel combusted in the biomass residue fired power plant^{/FFPP/}
- Quantity of fossil fuel combusted at the project site for other purposes that are attributable to the project activity^{/FFPS/}
- Moisture content of the biomass residues^{/MCBR/}
- Report of Net calorific value of biomass residue category n ^{/NCV/}

All the figures as per the monitoring report were cross-checked by the verification team against basic monitored data. Besides the verification team has conducted a mass and energy balance as a plausibility check of input and output data reported.

No malfunction of meters and other equipments was detected during the monitoring period and the backup system as indicated in the PDD and monitoring report was not adopted.

5.11. Quality Management

A monitoring team has been set up and trained to conduct the monitoring. The monitoring procedures have been defined in the project management procedures^{/QA&O&M/}. The internal audit for monitoring work has been carried out^{/TCR/}. No major non-conformity was found in the internal audit which was checked via on-site interviews.

Quality management procedures for measurements, collection and compilation of data, data storage and archiving, calibration, maintenance and training of personnel

in the framework of this CDM project activity have been defined. The procedures defined can be assessed as appropriate for the purpose. No significant deviations thereof have been observed during the verification.

5.12. Actual emission reductions during the first commitment period and the period from 1 January 2013 onwards

The MR includes actual ER values achieved up to 31 December 2012 and actual values achieved from 1 January 2013 onwards as follows:

Table 5-2: Emission reductions before and after the end of 2012

	until 2012-12-31 ¹⁾	from 2013-01-01 ¹⁾	Sum
Emission reductions [tCO _{2e}]	127,686	33,733	161,419

¹⁾ Both days included

5.13. Comparison with ex-ante estimated emission reductions

The MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the registered PDD.

From 2012-04-01 to 2013-03-31 (covering 365 days), the project achieved 161,419 tCO_{2e} of emission reductions. The estimated emission reductions in the registered PDD during this monitoring period is calculated as:
 $(365\text{days}/365\text{days}) \times 162,647 \text{ tCO}_2\text{e} = 162,647 \text{ tCO}_2\text{e}$.

Thus, the actual emission reduction was found lower than the estimated emission reduction in the registered PDD. There is no risk of the increase.

5.14. Overall Aspects of the Verification

All necessary and requested documentation was provided by the project participants so that a complete verification of all relevant issues could be carried out.

Access was granted to all installations of the plant which are relevant for the project performance and the monitoring activities.

No issues have been identified indicating that the implementation of the project activity and the steps to claim emission reductions are not compliant with the Gold Standard criteria and relevant guidance provided by the COP/CMP and the CDM EB (clarifications and/or guidance).

5.15. Hints for next periodic Verification

No Hints for next periodic Verification.

6. VERIFICATION AND CERTIFICATION STATEMENT

Everbright Alternative Energy (Dangshan) Limited has commissioned the TÜV NORD JI/CDM Certification Program to carry out the GS CER 1st periodic verification of the project: “Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited”, with regard to the relevant requirements for GS/CDM project activities. The project reduces GHG emissions due to the displacement of fossil-fuel based grid connected power generation. This verification covers the period from 2012-04-01 to 2013-03-31 (including both days).

In the course of the verification 4 Corrective Action Requests (CAR) and 0 Clarification Requests (CL) were raised and successful closed. The verification is based on the draft monitoring reports, the monitoring plan as set out in the registered PDD, the validation report, emission reduction calculation spreadsheet and supporting documents made available to the TÜV NORD JI/CDM CP by the project participant.

As a result of this verification, the verifier confirms that:

- all operations of the project are implemented and installed as planned and described in the validated project design document.
- the monitoring plan is in accordance with the applied approved CDM methodology, i.e., ACM0018 ver.02.0.0
- the installed equipment essential for measuring parameters required for calculating emission reductions are calibrated appropriately.
- the monitoring system is in place and functional. The project has generated GHG emission reductions.

As the result of the GS CER 1st periodic verification, the verifier confirms that the GHG emission reductions are calculated without material misstatements in a conservative and appropriate manner. TÜV NORD JI/CDM CP herewith confirms that the project has achieved emission reductions in the above mentioned reporting period as follows:

Emission reductions: **161,419** t CO_{2e}

Shanghai, 2014-02-12



Zhao Xuejiao

TÜV NORD JI/CDM Certification
Program

Verification Team Leader

Essen, 2014-02-12



Alexandra Nebel

TÜV NORD JI/CDM Certification
Program

Final Approval

7. REFERENCES

Table 7-1: Documents provided by the project participant(s)

Reference	Document
/BL/	Business License and organization chart of the project owner
/BRBS/	Biomass residues balance sheet/reports covering this monitoring period • Monthly biomass reports of electronic belt scale and electronic truck scales including $BR_{PJ,n,y}$ and $BR_{TR,y}$ • Daily biomass reports of electronic belt scale and electronic truck scales including $BR_{PJ,n,y}$ and $BR_{TR,y}$ • Weighting notes of biomass residues transported quantities for each truck base • Biomass residues purchased quantities during this monitoring period. • Monthly Stock of biomass residues record during this monitoring period. • Biomass purchase contracts signed between the project owner and biomass process station.
/BRCR/	- Biomass resources collection special report issued by MI First Design & Research Institute Co., Ltd. In Mar. 2013. - Certification of MI First Design & Research Institute Co., Ltd. Issued by NDRC on 2008-10-23, Ref No. Gongzijia 21420070007

Reference	Document
/CAL/	Calibration certificates covering monitoring period (2012-04-01 to 2013-03-31) 1. Calibration Certificate of Meter M1, dated on 2011-08-18 and 2012-08-16, valid to 2013-08-15 issued by Anhui Electric Power Measurement & Testing Centre. 2. Calibration Certificate of Meter M2, dated on 2011-08-09 and 2012-08-07, valid to 2013-08-06 issued by Suzhou City Power Supply Company. 3. Calibration Certificate of Meter M3 and M4, dated on 2011-04-21 and 2012-04-19, valid to 2013-04-18 issued by Anhui Electric Power Measurement & Testing Centre. 4. Calibration Certificates to all the meters located in each biomass processing station covering this monitoring period, issued by Suzhou City Power Supply Company. 5. Calibration Certificate of electronic belt scale, dated on 2011-08-28 and 2012-08-27, valid to 2013-08-26 issued by Xuzhou Institute of Measurement & Testing Technology. 6. Calibration Certificate of electronic truck scale 1# and 2#, dated on 2012-03-01, 2012-08-31 and 2013-03-01 valid to 2013-08-31 issued by Dangshan County Quality Supervision and Technology Station. 7. Calibration Certificate of electronic balance, dated on 2011-08-05 and 2012-08-04, valid to 2013-08-03, issued by Dangshan County Quality Supervision and Technology Station. 8. Calibration Certificate of dry cabinet 1# and 2#, dated on 2011-08-05 and 2012-08-04, valid to 2013-08-03, issued by Dangshan County Quality Supervision and Technology Station. 9. Calibration Certificate of flow meters 11.031 and 11.032, dated on 2011-08-10 and 2012-08-09, valid to 2013-08-08, issued by Suzhou City Measurement Verification and Testing Station. 10. Calibration Certificate of 49efuelling machine, dated on 2012-02-04, 2012-06-02, 2012-09-30 and 2013-01-28 valid to 2013-05-27, issued by Dangshan County Quality Supervision and Technology Station. 11. Procedure of control of monitoring meters. 12. Calibration Certificate for PT & CT issued by Anhui Electric Power Measurement & Testing Centre on 2011-07-26, valid period is ten years.
/CMA/	- Certificate of Metrological Authorization of Anhui Electric Power Measurement & Testing Centre dated 2010-01-01 issued by State Grid Corporation of China, the valid period is to 2015-12-31. - Certificate of Metrological Authorization of Suzhou City Power Supply Company dated 2010-12-30 issued by Anhui Province Quality and Technology Supervision Bureau, the valid period is to 2013-12-29. - Certificate of Metrological Authorization of Xuzhou Institute of Measurement & Testing Technology dated 2009-03-18 issued by Jiangsu Province Quality and Technology Supervision Bureau, the valid period is to 2014-03-17. - Certificate of Metrological Authorization of Dangshan County Quality Supervision and Technology Station dated 2010-05-12 issued by Anhui Province Quality and Technology Supervision Bureau, the valid period is to

Reference	Document
	2013-05-11. - Certificate of Metrological Authorization of Suzhou City Measurement Verification and Testing Station dated 2011-01-01 issued by Anhui Province Quality and Technology Supervision Bureau, the valid period is to 2013-07-31. - Certificate of Metrological Authorization of Dangshan County Metrology and Measurement Station dated 2011-01-01 issued by Anhui Province Quality and Technology Supervision Bureau, the valid period is to 2013-07-31.
/DMS/	Data management and archive system 1. Data management manual 2. Photo of the filing room 3. Hard copy and soft copy(hard disk, tapes, CDs) of the data
/EAEP/	Examination and Acceptance of Environmental Protection for the Project issued by the Anhui Province Environmental Protection Bureau on 2012-01-31
/EBS/	Electricity balance sheets/reports covering the monitoring period • Monthly electricity reports of Meter M1 and M2 including $EG_{PJ,gross,y}$ and $EG_{PJ,aux,y}$ • Daily electricity reports of Meter M1 and M2 including $EG_{PJ,gross,y}$ and $EG_{PJ,aux,y}$ • Monthly and daily electricity balance sheets/reports of Meter M3 and M4 • Electricity sales and purchasing record of Meter M3 and M4 • Electricity sales invoices for Meter M3 and M4
/ECO/	- Statistic of electricity consumed off-site $EG_{off-site,y}$ issued by Dangshan Power Supply Company dated 2013-04-15, 2013-04-17 , 2013-04-24 and 2013-07-19 separately. - Monthly electricity purchasing record by each biomass process station.
/EMPI/	Environment Management Plan which is completed according to the results of the EIA report completed on 2010-06-04
/EMR/	Environmental Monitoring Report for Examination and Acceptance of Environmental Protection issued by Anhui Environmental Monitoring Center in Jan. 2012
/EMRN/	Environmental Monitoring Report on noise by Suzhou Environmental Monitoring Center issued on 16/01/2013
/FFPP/	Quantity of fossil fuel combusted in the biomass residue fired power plant - Reading of the flow meters.

Reference	Document
	- Reading record during 1 st monitoring period
/FFPS/	Quantity of fossil fuel combusted at the project site for other purposes that are attributable to the project activity - Monthly diesel record for vehicle refuelling of each vehicle used on-site. - Invoices of the diesel purchased monthly - Stock records of quantity of fossil fuel
/FGMM/	Flue Gas Monitoring Monthly Report issued by Suzhou Environmental Monitoring Center
/FSR/	Feasibility Study Report, carried out by Engineering Industry First Design and Research Institute, 06/2010.
/GMMC/	Greening maintenance and management contract signed in Dec. 2012 with Jiangsu Dabang gardening and afforestation Co., Ltd.
/LOG/	• Power plant daily operation log. • Power plant daily dispatch log. • Maintenance plan and records. • Electric equipments operation records. • Duty shift records. • Hourly power generation statistics from DCS. • Daily power generation statistics from DCS. • Monthly power generation statistics from DCS. • Daily biomass residues used statistics from DCS.
/LUC/	Land Use Certificate issued by Dangshan County Land Resources Bureau
/MCBR/	Moisture content of the biomass residues - Daily and monthly moisture content measuring record of the moisture content of each category of biomass residues combusted. - Job instruction of laboratorial analysis for moisture content measuring
/MM/	Monitoring manual for the project site
/MR/	Carbon Monitoring Report (CMR) of Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited for GSC, dated 2014-01-15, version 01 Sustainability Monitoring Report(SMR) of Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited for GSC, dated 2014-01-15, version 01

Reference	Document
	Sustainability Monitoring Report(SMR) of Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited for GSC, dated 2014-02-10, version 02
/MRD/	Daily meter reading records of Meter M1, M2, M3 and M4 (2012-04-01 to 2013-03-31)
/INCV/	- Report of net calorific value of biomass residue category <i>n</i> measured by Shandong Taishan Mineral Resources Examination Institute dated 2012-03-03, 2012-09-03 and 2013-03-03. - Certifications of Shandong Taishan Mineral Resources Examination Institute issued by National Accreditation Board for conformity assessment dated 2007-8-24, valid to 2012-08-23 and dated 2012-09-01, valid to 2017-08-31.
/NPV/	NPV calculation sheet provided by the project participant (related to revised PDD).
/O&M/	Project operation and maintenance records 1. Sample copy of O&M records 2. Operation safety management regulations
/R-PDD/	Revised PDD which is based on the post registration change of project design
/PHT/	Photographs of project site, all the meters and other measurement facilities, nameplate of the equipments, centre control room, storage of biomass residues, on-site vehicles, each biomass processing station etc.
/PPA/	Power purchasing agreement signed by PP and Anhui Province Power Grid Company dated 2011-09-07, which is still valid during this monitoring period.
/PWD/	Power wiring diagram
/QA/	QA/QC procedures
/RSP/	Monthly record of salary payment during this monitoring period for the project. Sample Copy of Labor contracts for the project
/RTD/	Average round trip distance (from and to) between biomass processing stations and the project site -Each record of round trip distance between biomass processing stations and the project site for every truck load. All the distances are less than 50km for one way. -Map of the location of each biomass processing station issued by MI First

Reference	Document
	Design & Research Institute Co., Ltd., the distance is comparing to the project site. All the distances are less than 50km.
/TCR/	Project responsibilities, training and competence records 1. Project organization chart and responsibilities 2. Staff training records 3. Sample copy of operator certificates 4. Internal audit record covering this monitoring period
/TL/	Average truck load of the trucks used for transportation of biomass - Monthly record of average truck load. - Weighting notes for every truck load
/TPI/	Technical particulars of boiler, turbine and generator–the annex of equipment purchase contract
/WWMR/	Waste Water Monitoring Report issued by the Suzhou City Environmental Protection Monitoring Station on 2013-04-15.
/XLS/	Emission calculation sheet provided by the project participant (related to CMR), version 01 dated 2014-01-15.

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM0018/	ACM0018 Ver.02.0.0: Consolidated methodology for electricity generation from biomass residues in power-only plants
/Annex-GS/	Gold Standard Annexes http://www.cdmgoldstandard.org/project-certification/rules-and-toolkit
/CDM-PDD/	UNFCCC registered Project Design Document named “Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited” ver. 04. dated 2013-07-30
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/CESY/	China Energy Statistical Yearbook 2011
/EB69-Annex3/	Standard for application of the global warming potentials to clean development mechanism project activities and programmes of activities for the second

Reference	Document
	commitment period of the Kyoto protocol.(Version 01.0)
/GB/	GB 19147-2009 issued by China National standardization Administration Committee dated 2009-06-12 and implemented dated 2010-01-01.
/GCT/	Glossary of CDM terms (Ver.7)
/GLMP/	Guidelines for completing the monitoring report form (Version 03.2, EB70)
/GMR/	Guidelines for completing the monitoring report form (Version 03.2, EB70)
/GSP/	Gold Standard Passport for GS project: “Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited” dated 2013/12/24, version 03
/GSR/	Gold Standard Requirement version 2.2
/GSTK/	Gold Standard Toolkit version 2.2
/IPCC/	1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book
/JJG/	Verification regulation of electric watt-hour meters (JJG596-1999)
/KPI/	Kyoto Protocol (1997)
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)
/MRT/	Monitoring Report Form (F-CDM-MR) Version 03.2
/NES/	National Emission Standard (Dust 200mg/m ³ ; NO _x 450 mg/m ³ ; SO ₂ 800 mg/m ³), which is the Emission Standard of Air Pollutant Applied to Thermal Power Plant
/NS-METER/	DL/T 448-2000 technical administration code of electricity energy metering
/PDD/	Project Design Document for GS project: “Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited” dated 2013/09/23, version 02.
/PS/	Project Standard (Version 5.0)

Reference	Document
/RNCV/	International standards Testing Methods for Heat Value of Biomass Fuels NY/T12-1985
/SAM/	Standard: Sampling and surveys for CDM project activities and programmes of activities EB 74 Annex 6 Version 4.0 Guideline: Guideline for sampling and surveys for CDM project activities and programmes of activities EB 69 Annex 5 Version 2.0
/VAL/	Validation Report for GS project “Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited” dated 2013-12-27, version 03.
/VER/	Verification Report for CDM 2 nd Verification (covering the same monitoring period to the GS 1 st Verification) of “Biomass Power Generation Project by Everbright Alternative Energy (Dangshan) Limited” dated 2013-09-06.
/VVS/	UNFCCC Validation and Verification Standard (Version 5.0)
/WWS/	Grade III of the Standard of Comprehensive Discharge of Wastewater

Table 7-3: Websites used

Reference	Link	Organisation
/aasl/	http://www.ahjtj.gov.cn/tjj/web/info_view.jsp?strId=1380607193231982&index=1	Anhui Province average salary level
/dna-HP/	www.cdm.ccchina.gov.cn	DNA of China
/dna-SP/	http://www.environment-agency.gov.uk/business/topics/pollution/129666.aspx	DNA of United Kingdom of Great Britain and Northern Ireland
/unfccc/	http://cdm.unfccc.int	UNFCCC
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications

Table 7-4: List of interviewed persons

Reference	Moi ¹		Name	Organisation / Function
/IM01/	V	☒ Mr. ☐ Ms	SHAO Bing	Everbright Alternative Energy (Dangshan) Limited/ Vice Merchandising Manager
/IM01/	V	☒ Mr. ☐ Ms	LIU Ji Feng	Everbright Alternative Energy (Dangshan) Limited/ Engineer of Safety and Environment
/IM02/	V	☐ Mr. ☒ Ms	YANG Sui	Innovative Carbon Investment Co., Ltd./Project Assistant
/IM03/	V	☒ Mr. ☐ Ms	LI Mei Rong	Biomass Process Station/ Manager
/IM03/	V	☒ Mr. ☐ Ms	Zhang Gan	Dangshan County DRC/Department Chief
/IM03/	V	☒ Mr. ☐ Ms	Guo Zunshou	Dangshan County Agricultural Commission/Vice Chief
/IM03/	V	☒ Mr. ☐ Ms	Meng Xiangdong	Dangshan County EPB/Vice Bureau Chief
/IM03/	V	☒ Mr. ☐ Ms	Chen Wendi	Everbright Hope School/President
/IM03/	V	☒ Mr. ☐ Ms	Mao Pinxiu	Dangshan County/Residents
/IM03/	V	☒ Mr. ☐ Ms	Yu Shihua	Dangshan County/Residents

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

ANNEX

- A1:** Verification Protocol
- A2:** Statements of Competence of
involved Personnel

ANNEX 1: VERIFICATION PROTOCOL

Table A-1: GHG calculation procedures and management control testing / detailed audit testing of residual risk areas and random testing

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
Raw data generation				
• Installation of measuring equipment • Dysfunction of installed equipment • Maloperation by operational personnel • Downtimes of equipment • Exchange of equipment • Change of measurement equipment characteristic • Insufficient accuracy • Change of technology	• Installation of modern and state of the art equipment • Process control automation • Internal data review • Regular visual inspections of installed equipment • Only skilled and trained personnel operates the relevant equipment • Daily raw data checks • Immediate exchange of dysfunctional equipment • Stand-by duty is	• Inadequate installation / operation of the monitoring equipment • Inadequate exchange of equipment • Change of personnel • Undetected measurement errors • Inappropriateness of Management system procedures w.r.t. monitoring plan requirements (e.g. substitute value strategies) • Non-application of management system procedures • Insufficient accuracy • Inappropriate QA/QC	• Site – visit • Check of equipment • Check of technical data sheets • Check of suppliers information / guarantees • Check of calibration records, if applicable • Check of maintenance records • Counter-check of raw data and commercial data • Check of CDM management system • Check of CDM related procedures	• See Table A-2

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
Accuracy of values supplied by Third Parties	- organized - Training - Internal audit procedures - Internal check of QA/QC measures of involved Third Parties	measures of Third Parties	- Application of CDM management system procedures - Check of trainings - Check of responsibilities - Check of QA/QC documentation / evidences of involved Third Parties	
Raw data collection and data aggregation				
- Wrong data transfer from raw data to daily and monthly aggregated reporting forms - IT Systems - Spread sheet programming - Manual data transmission - Data protection - Responsibilities	- Cross-check of data - Plausibility checks of various parameters. - Appropriate archiving system - Clear allocation of responsibilities - Application of CDM Management system procedures - Usage of standard software solutions	- Unintended usage of old data that has been revised - Incomplete documentation - Ex-post corrections of records - Ambiguous sources of information - Non-application of management system procedures - Manual data transfer mistakes	- Check of data aggregation steps - Counter-calculation - Data integrity checks by means of graphical data analysis and calculation of specific performance figures - Check of management system certification - Check of data archiving system	See Table A-2

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
	(Spreadsheets) - Limited access to IT systems - Data protection procedures	- Unintended change of spread sheet programming or data base entries - Problems caused by updating/upgrading or change of applied software	Check of application of Management system procedures	
Other calculation parameters				
Emission factors, oxidation factors, coefficients	The values and data sources applied are defined in the PDD and monitoring plan	- Unintended or intended Modification of calculation parameters - Wrong application of values - Misinterpretations of the applied methodology and/ or the PDD - Missing update of applicable regulatory framework (e.g. IPCC values)	- Update-check of regulatory framework - Countercheck of the applied MP in the MR against the methodology and the PDD	See Table A-2
Calculation Methods				

Identification of potential reporting risk	Identification, assessment and testing of management controls	Areas of residual risks	Additional verification testing	Conclusions and Areas Requiring Improvement (including <i>Forward Action Requests</i>)
- Applied formulae - Miscalculation - Mistakes in spread-sheet calculation	- Advanced calculation and reporting tools - A CDM coordinator is in charge of the CDM related calculations - Usage of tested / counterchecked Excel spreadsheets - Involvement of external consultants	The danger of miscalculation can only be minimized.	- Countercheck on the basis of own calculation. - Spread sheet walk-through. - Plausibility checks - Check of plots	See Table A-2
Monitoring reporting				
- Data transfer to the author of the monitoring report - Data transfer to the monitoring report - Unintended use of outdated versions	- An experienced CDM consultant is responsible for monitoring reporting. - CDM QMS procedures are defined	- The danger of data transfer mistakes can only be minimized - Inappropriate application of QMS procedures	- Counter check with evidences provided. - Audit of procedure application	See Table A-2

Table A-2: (Project specific) Periodic Verification Checklist

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
A. Description of the project activity				
A.1. Purpose and general description of the project activity (EB 75, Annex 7, A.1) <i>Check if section A.1 of the MR includes the following:</i> - Purpose of the PA and the measures taken to reduce GHG emissions - Brief description of the installed technology and equipment - Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc.) - Total emission reductions achieved in this monitoring period	/MR/ /TP/ /XLS/	The verification team has checked section A.1 of the MR and confirms that the information provided is complete and correct with regards to the following: ☒ Purpose of the PA and the measures taken to reduce GHG emissions ☒ Brief description of the installed technology and equipments ☒ Relevant dates for the project activity (e.g. construction, commissioning, continued operation periods etc) ☒ Total emission reductions achieved in this monitoring period In this context the following findings have been identified: N/A	OK	OK
A.2. Location of project activity (EB 75, Annex 7, A.2) <i>Check if section A.2 of the MR reflects correctly the following:</i> - Host Party(ies) - Region / State / Province etc. - City / Town / Community etc.	/MR/ /PDD/ /IM/	The verification team has checked section A.2 of the MR and confirms by means of comparison with the information given in the PDD and information gathered during the site visit that the information provided is complete and correct with regards to the following: ☒ Host Party(ies) ☒ Region / State / Province ☒ City / Town / Community	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
- <i>Physical / geographical location (e.g. Latitude and Longitude)</i>		☒ Physical / Geographical location In this context the following findings have been identified: N/A		
A.3. Parties and Project Participants (EB 75, Annex 7, A.3) <i>Check if section A.3 of the MR includes the following:</i> - <i>All PPs as displayed on the UNFCCC website</i> - <i>A correctly filled table as per the MR template</i>	/MR/ /unfccc/	The verification team has checked section A.3 of the MR as well as the UNFCCC website and confirms that: ☒ all PPs as displayed on the project related UNFCCC website are correctly listed ☒ the table as per the template MR has been correctly filled In this context the following findings have been identified: N/A	OK	OK
A.4. Reference of applied methodology (EB 75, Annex 7, A.4) <i>Check if section A.4 of the MR correctly describes / includes the following:</i> - <i>Reference to the applicable version of the methodology</i> - <i>Reference to the applicable version(s) of relevant methodological tools</i> - <i>Relevant EB decisions, if applicable</i>	/MR/ /PDD/ /unfccc/	The verification team has checked section A.4 of the MR and confirms by means of comparison with the information given in the PDD and displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: ☒ Number, title and version of the applicable CDM Methodology ☒ Name and version of applicable CDM methodological tools ☒ Relevant EB decisions In this context the following findings have been identified: N/A	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
A.5. Crediting period of project activity (EB 75, Annex 7, A.5) <i>Check if section A.5 of the MR correctly includes the following:</i> - <i>Start date of the crediting period. In this context please check, if applicable, whether post registration changes to the start date have been accepted by the EB.</i> - <i>Length and type of the crediting period</i>	/MR/ /unfccc/	The verification team has checked section A.5 of the MR and confirms by means of comparison with the information displayed on the UNFCCC website that the information provided is complete and correct with regards to the following: ☒ Start date of the crediting period. ☒ Type and length of the crediting period In this context the following findings have been identified: N/A	OK	OK
A.6. Publication of the Monitoring Report (VVS, § 207) <i>Check if the monitoring report has been made publicly available on the UNFCCC website before the verification commenced.</i> <i>Check if comments have been received and if yes, how they have been addressed.</i>	/unfccc/	The verification team has ensured and confirms by means of checking the respective project information on the UNFCCC website that: ☒ The draft monitoring report, as received from the project participants, has been made publicly available prior to the start of the verification activities. ☒ No comments have been received. In this context the following findings have been identified: N/A	OK	OK
A.7. Compliance with standardized format of the Monitoring Report (VVS, § 212 e) <i>Check (only) if the latest applicable MR template has been used. For compliance assessment with the MR guideline pl. refer to the respective MR sections.</i>	/MRT/	The verification team has checked all sections of the MR and confirms by means of comparison with the MR template that: ☒ the standardized MR template has been used In this context the following findings have been identified: N/A	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
B. Implementation of project activity				
B.1. Description of implemented registered project activity (EB 75, Annex 7, B.1) <i>Check if section B.1 of the MR correctly describes / includes the following:</i> - Implementation status of the PA - Detailed description of installed technology(ies) / technical processes and equipment applied - Diagrams (where appropriate)	/ MR/ / PDD/ / PS/ / TPI/	The verification team has checked section B.1 of the MR and confirms by means of comparison with the information given in the PDD, the project standard and information gathered during the site visit that: ☒ the description of the implementation status of the PA is in line with the applicable provisions of the project standard ☒ an appropriate description of the installed technology(ies), technical process and equipment incl. diagrams, where applicable, has been included In this context the following findings have been identified: N/A	OK	OK
B.1.1. Initial project implementation (VVS; § 225 a, 226) <i>Assess whether the project has been implemented and operated as per the registered PDD and are all physical features of the project in place?</i> <i>Further focus on the potential phase wise implementation and check the reporting on the corresponding status and starting dates accordingly.</i> <i>Check if the project is still in compliance with the applicability conditions of the methodology.</i> <i>Also, discuss – if applicable – the necessity of PRC notifications / approvals.</i>	/ IM01/ / PDD/ / LOG/ / TPI/ / PPA/ / MR/ / unfccc/	<i>Description:</i> The project was fully in operation on 2011-09-22. The main constructions and equipment, like the boiler, steam turbine, generator and the power connection system have been implemented according to the PDD. No deviations or changes to the main equipments were observed. <i>Verifier's action:</i> By means of on-site observation, interview and cross checking the PDD, Appendix 1 of Project Standard, the equipment technical particulars, Power Purchase Agreement and project information on UNFCCC website. <i>Conclusion:</i> It is confirmed that the project has been implemented and	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		operated as per the registered PDD and are all physical features of the project in place		
B.1.2. Technical equipment changes (VVS; § 225 a, 226) <i>Check if relevant technical equipment of the project activity has been exchanged or modified during the monitoring period. Further ensure that consistent notations of key equipment (meters etc.) in PDD, MR and calculation spreadsheet are applied</i> <i>Consider e.g. interviews with operational personnel, QMS records, maintenance records, instrument specifications.</i> <i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission reduction calculation.</i> <i>In case of post registration changes pl. refer to chapter B.2.</i>	/IM01/ /PDD/ /TP/ /PHT/ /PPA/	<i>Description:</i> The technical equipment, which include the feed system, boiler, steam turbine, generator, power connection system and the meters are in line with the registered PDD, equipment technical particulars and MR. <i>Verifier's action:</i> By means of cross check the name plate of key equipment, equipment technical Particulars against PDD and MR and information published on UNFCCC website, and further evidenced by on-site interview and observation. <i>Conclusion:</i> No relevant equipment was exchanged or modified within the monitoring period.	OK	OK
B.1.3. Operation of the project activity (VVS; § 225 a, 226) <i>Check if relevant operation modes of the project activity have been exchanged or modified during the monitoring period.</i> <i>Consider e.g. interviews with operational personnel, operation log sheets, data management system</i>	/IM01/ /PDD/ /PWD/ /PPA/ /LOG/ /DMS/	<i>Description:</i> The operation modes, i.e. biomass residues collection, biomass residues transmission, electricity connection and supplying are in line with the modes described in the registered PDD. <i>Verifier's action:</i> It was verified by means of checking with operation log sheets, data management system records covering this monitoring period and cross evidenced by on-site operator interview.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>records.</i> <i>In case of changes, check whether the project is still in line with the registered PDD and assure that these changes have been considered in the monitoring report and the emission reduction calculation.</i> <i>In case of post registration changes pl. refer to chapter B.2.</i>		<i>Conclusion:</i> No modification and exchanges on operation modes were detected during this monitoring period.		
B.1.4. Incidents (VVS; § 225 a, 226) <i>Identify if there have been any significant incidents, deviant operation modes and / or downtimes of the equipment?</i> <i>Consider e.g. interviews with operational personnel, operational log sheets, analysis of performance data.</i>	/IM01/ /LOG/ /O&M/ /PDD/	<i>Description:</i> No significant incidents and/or deviant operation modes of the equipment have occurred. Only normal basically maintenances occurred during this monitoring period. The related information of the downtimes has been stated in MR. <i>Justification of evidences:</i> It was verified by means of site observation, the plant operation logs check, equipments check & maintenance log check, and could be cross evidenced by interviewing with the plant operators. <i>Conclusion:</i> Incidents during the monitoring period have not been observed.	OK	OK
B.1.5. Legislation Find out – esp. in the context of methodological requirements - whether relevant legislation with effect on the project activity in the host country has been changed. Assess, in case of changes, whether consequences	/IM01/ /dna-HP/	<i>Description:</i> Relevant legislation incl. electricity generation and transmission, related environmental protection laws, sectoral policies and relevant regulations were not changed. <i>Verifier's action:</i> It was verified through consulting official governmental website	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
for the PA with regard to relevant CDM requirements have been accounted for. In case of changes data sources shall be referenced.		and as per the local and sectoral expertise of the verification team. <i>Conclusion:</i> No relevant changes since the validation were identified.		
B.1.6. Open issues from validation (VVS; § 213) <i>Check (esp. in case of 1st periodic verification) whether there are any open issues indicated in the validation report (e.g. FAR)?</i>	/VAL/	☒ There were no open issues addressed in the validation report ☐ All open issues from the validation have been appropriately addressed. ☐ The following issues related to the validation have not yet been appropriately addressed:	OK	OK
B.1.7. Open issues from previous verification (VVS; §§ 213; 284 h) <i>Check in case of further periodic verifications whether there are any open issues indicated in previous verification reports (FAR) and take into consideration the guidance as specified in VVS.</i>		☐ There were no open issues addressed in the previous verification report ☐ All open issues from the previous verification have been appropriately addressed. ☐ The following issues related to the previous verification have not yet been appropriately addressed: This is the 1 st GS CER periodic verification	N/A	N/A
B.2. Post registration changes				
B.2.1. Are post registration changes applicable to the proposed project activity?		☒ No, by means of site visit, document check and interview it could be verified that the project is implemented and operated in line with the registered PDD and the applied methodology. (Please proceed with section C) ☐ Yes, post registration changes have been identified and	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																																	
		are assessed in detail in the subsequent steps. (Please proceed with B.2.2.)																																			
B.2.2. Temporary deviations from the registered monitoring plan or applied methodology (TDfrMP; TDfMM) (EB 75, Annex 7, B.2.1; VVS §§ 251 - 256) <i>Indicate whether any temporary deviations have been applied during this monitoring period. In cases where approval has been sought from the EB please provide reference. If applied, provide a description of the deviation(s). This should include the reasons for the deviation(s), how it deviates from the monitoring plan and/or applied methodology(ies), the duration for which the deviation(s) is(are) applicable and justification on the conservativeness of the approach. Indicate if the deviation will lead to a reduction in the accuracy and if so, which conservative assumptions and discount factors have been applied. For deviation(s) that require prior approval by the Board, include the date of approval and reference number.</i>	/PS/ /unfccc/	<table><tr><td>☒</td><td colspan="2">No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="8">☐</td><td colspan="2">The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC</td></tr><tr><td rowspan="4">1</td><td>Title</td><td></td></tr><tr><td>Status</td><td>☐ under approval; ☐ approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td>Ref. No.</td><td></td></tr><tr><td rowspan="4">2</td><td>Title</td><td></td></tr><tr><td>Status</td><td>☐ under approval; ☐ approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td>Ref.No.</td><td></td></tr><tr><td>☒</td><td colspan="2">During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA</td></tr><tr><td rowspan="2">☐</td><td colspan="2">An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr></table>	☒	No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period		☐	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC		1	Title		Status	☐ under approval; ☐ approved	Appr.date		Ref. No.		2	Title		Status	☐ under approval; ☐ approved	Appr.date		Ref.No.		☒	During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA		☐	An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.		1	Issue:		N/A	N/A
☒	No TDfrMP or TDfMM have been submitted to the UNFCCC prior to the current monitoring period																																				
☐	The following TDfrMP or TDfMM have been approved or are under approval by the UNFCCC																																				
	1	Title																																			
		Status	☐ under approval; ☐ approved																																		
		Appr.date																																			
		Ref. No.																																			
	2	Title																																			
		Status	☐ under approval; ☐ approved																																		
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☒	During the verification of the current MP no need for a TDfrMP or TDfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA																																				
☐	An approval of the following TDfrMP or TDfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.																																				
	1	Issue:																																			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.														
		<table><tr><td></td><td>2</td><td>Issue:</td><td></td></tr><tr><td rowspan="3">☐</td><td colspan="3">The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr><tr><td>2</td><td>Issue:</td><td></td></tr></table> <i>In cases of approved TDfrMP or TDfM the EB guidance has been applied as follows:</i> N/A <i>Detailed description and justification each TDfrMP or TDfM for which appendix 1 is applicable:</i> N/A In this context the following findings have been identified: N/A		2	Issue:		☐	The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:			1	Issue:		2	Issue:			
	2	Issue:																
☐	The following TDfrMP or TDfMM for which appendix 1 of the PS is applicable have been applied:																	
	1	Issue:																
	2	Issue:																
B.2.3. Corrections (EB 75, Annex 7, B.2.2; VVS; §§ 257 - 259) <i>Indicate whether any corrections to project information or parameters fixed at validation have been approved during this monitoring period or submitted with this monitoring report.</i> <i>In cases where the correction(s) and the revised PDD</i>		<table><tr><td>☒</td><td colspan="3">During the verification of the current MP no need for corrections has been identified.</td></tr><tr><td rowspan="2">☐</td><td colspan="3">The following corrections have been applied:</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr></table>	☒	During the verification of the current MP no need for corrections has been identified.			☐	The following corrections have been applied:			1	Issue:		N/A	N/A			
☒	During the verification of the current MP no need for corrections has been identified.																	
☐	The following corrections have been applied:																	
	1	Issue:																

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.																																							
are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD. Please check and report that the corrected information is an accurate reflection of the actual project information and that the corrected parameters are in accordance with the applied methodology and the monitoring plan.			2	Issue:																																										
		Detailed description and justification each correction: N/A In this context the following findings have been identified: N/A																																												
B.2.4. Permanent changes from the registered monitoring plan or applied methodology (PCfrMP; PCfMM) <i>(EB 75, Annex 7, B.2.3; VVS; §§ 262 - 268)</i> Indicate whether any permanent changes from the registered monitoring plan or applied methodologies have been approved during this monitoring period or submitted with this monitoring report. In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.		<table><tr><td>☒</td><td colspan="3">No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="8">☐</td><td colspan="4">The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC</td></tr><tr><td rowspan="4">1</td><td>Title</td><td colspan="2"></td></tr><tr><td>Status</td><td colspan="2">☐ under approval; ☐ approved</td></tr><tr><td>Appr.date</td><td colspan="2"></td></tr><tr><td>Ref. No.</td><td colspan="2"></td></tr><tr><td rowspan="4">2</td><td>Title</td><td colspan="2"></td></tr><tr><td>Status</td><td colspan="2">☐ under approval; ☐ approved</td></tr><tr><td>Appr.date</td><td colspan="2"></td></tr><tr><td>Ref.No.</td><td colspan="2"></td></tr><tr><td>☒</td><td colspan="3">During the verification of the current MP no need for a</td></tr></table>				☒	No PCfrMP or PCfMM have been submitted to the UNFCCC prior to the current monitoring period			☐	The following PCfrMP or PCfMM have been approved or are under approval by the UNFCCC				1	Title			Status	☐ under approval; ☐ approved		Appr.date			Ref. No.			2	Title			Status	☐ under approval; ☐ approved		Appr.date			Ref.No.			☒	During the verification of the current MP no need for a			N/A	N/A
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Ref.No.																																														
☒	During the verification of the current MP no need for a																																													

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.	
		PCfrMP or PCfMM has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA			
		An approval of the following PCfrMP or PCfMM is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.			
		1 Issue:			
		2 Issue:			
		The following PCfrMP or PCfMM for which appendix 1 of the PS is applicable have been applied:			
		1 Issue:			
		2 Issue:			
		<i>In cases of approved PCfrMP or PCfMM the EB guidance has been applied as follows:</i> N/A			
		<i>Detailed description and justification each PCfrMP or PCfM for which appendix 1 is applicable:</i> N/A			
		<i>In this context the following findings have been identified:</i> N/A			

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.																																					
B.2.5. Changes to the project design of the registered project activity (CoPD) <i>(EB 75, Annex 7, B.2.4; VVS; §§ 269 - 282)</i> <i>Indicate whether any changes to the project design of the project activity have been approved during this monitoring period or submitted with this monitoring report.</i> <i>In cases where the change(s) and the revised PDD are approved prior to the submission of this monitoring report for request for issuance, provide the approval date and reference number. Otherwise, provide the version number and the completion date of the revised PDD.</i>		<table><tr><td>☒</td><td colspan="3">No CoPD has been submitted to the UNFCCC prior to the current monitoring period</td></tr><tr><td rowspan="8">☐</td><td colspan="3">The following CoPD has been approved or are under approval by the UNFCCC</td></tr><tr><td rowspan="4">1</td><td>Title</td><td></td></tr><tr><td>Status</td><td>☐ under approval; ☐ approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td>Ref. No.</td><td></td></tr><tr><td rowspan="4">2</td><td>Title</td><td></td></tr><tr><td>Status</td><td>☐ under approval; ☐ approved</td></tr><tr><td>Appr.date</td><td></td></tr><tr><td>Ref.No.</td><td></td></tr><tr><td>☒</td><td colspan="3">During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA</td></tr><tr><td rowspan="2">☐</td><td colspan="3">An approval of the following CoPD.is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr></table>	☒	No CoPD has been submitted to the UNFCCC prior to the current monitoring period			☐	The following CoPD has been approved or are under approval by the UNFCCC			1	Title		Status	☐ under approval; ☐ approved	Appr.date		Ref. No.		2	Title		Status	☐ under approval; ☐ approved	Appr.date		Ref.No.		☒	During the verification of the current MP no need for a CoPD has been identified. The monitoring plan is in accordance with the approved methodology applied by the PA			☐	An approval of the following CoPD.is to be requested from the EB for the current MP as appendix 1 of the project standard does not apply.			1	Issue:		N/A	N/A
☒	No CoPD has been submitted to the UNFCCC prior to the current monitoring period																																								
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	1	Issue:																																							

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.														
		<table><tr><td></td><td>2</td><td>Issue:</td><td></td></tr><tr><td rowspan="3">☐</td><td colspan="3">The following CoPD for which appendix 1 of the PS is applicable have been applied:</td></tr><tr><td>1</td><td>Issue:</td><td></td></tr><tr><td>2</td><td>Issue:</td><td></td></tr></table>					2	Issue:		☐	The following CoPD for which appendix 1 of the PS is applicable have been applied:			1	Issue:		2	Issue:			
			2	Issue:																	
		☐	The following CoPD for which appendix 1 of the PS is applicable have been applied:																		
			1	Issue:																	
			2	Issue:																	
		<i>In cases of approved CoPD the EB guidance has been applied as follows:</i> N/A																			
<i>Detailed description and justification each CoPD for which appendix 1 of the CDM Project Standard is applicable:</i> N/A																					
In this context the following findings have been identified: N/A																					
C. Description of monitoring system																					
C.1. Monitoring Plan – PDD Compliance (VVS, §§ 233-236) Check if the monitoring plan is in accordance with the monitoring plan contained in the registered PDD (or	/MR/ /PDD/	By means of comparison of the MR with the registered PDD (or any revisions thereof) the verification team has checked whether the MP is in compliance with the registered PDD. The outcome is as follows:				OK	OK														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.												
<i>any accepted revised MP).</i> <i>Please check esp. if</i> - <i>all parameters stated in the MP of the registered PDD have been monitored and updated as applicable</i> - <i>the monitoring equipment has been controlled and calibrated as per the MP</i> - <i>the monitoring results are consistently recorded as per the approved frequency</i> - <i>QA/QC procedures have been applied in accordance with the MP</i>		<table><tr><td>☒</td><td colspan="2">The MP is completely in accordance with the last registered/approved version of the PDD / MP.</td></tr></table> In this context the following findings have been identified: N/A	☒	The MP is completely in accordance with the last registered/approved version of the PDD / MP.												
☒	The MP is completely in accordance with the last registered/approved version of the PDD / MP.															
C.2. Monitoring Plan – Meth Compliance (VVS, §§ 229-232) <i>Check if the monitoring plan is in accordance with the applied methodology.</i> <i>In case the methodology references applicable tools it has to be ensured that the MP is also compliant with those tools.</i> <i>Also please specify if monitoring aspects have been identified that are not specified in the methodology but may enhance the level of accuracy and completeness of the monitoring plan – this esp. applies for SSC PAs.</i>	/MR/ /PDD/ /ACM000 2/	By means of comparison of the MR with the applied CDM methodology and related tools the verification team has checked whether the MP is in compliance with the MP related requirements of the applied methodology. The outcome is as follows: <table><tr><td>☒</td><td colspan="2">The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)</td></tr><tr><td>☒</td><td colspan="2">The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:</td></tr><tr><td>1</td><td>Title (of the tool)</td><td>Tool to calculate the emission factor for an electricity system</td></tr><tr><td></td><td>Version</td><td>03.0.0</td></tr></table>	☒	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)		☒	The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:		1	Title (of the tool)	Tool to calculate the emission factor for an electricity system		Version	03.0.0	OK	OK
☒	The MP is completely in accordance with the approved methodology applied by the CDM project (last registered/approved version of the PDD)															
☒	The MP is completely in accordance with the applied tools which the methodology references. A breakdown of the referenced tools is as follows:															
1	Title (of the tool)	Tool to calculate the emission factor for an electricity system														
	Version	03.0.0														

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)			Draft Concl.	Final Concl.
				MP compliance	☐ full compliance ☐ findings have been raised ☒ N/A (for MP)	
			2	Title (of the tool)	Emissions from solid waste disposal site	
				Version	06.0.1	
				MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)	
			3	Title (of the tool)	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion	
				Version	02	
				MP compliance	☒ full compliance ☐ findings have been raised ☐ N/A (for MP)	
			4	Title (of the tool)	Tool to calculate baseline, project and/or leakage emissions from electricity consumption	
				Version	01	
				MP compliance	☒ full compliance ☐ findings have been raised	

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)				Draft Concl.	Final Concl.		
					☐ N/A (for MP)				
			5	Title (of the tool)	Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period				
				Version	03.0.1				
				MP compliance	☐ full compliance ☐ findings have been raised ☒ N/A (for MP)				
			6	Title (of the tool)	Project and leakage emissions from transportation of freight				
				Version	01.1.0				
				MP compliance	☐ full compliance ☐ findings have been raised ☒ N/A (for MP)				
			In this context the following findings have been identified:						
			Regarding aspects that are not specified in the methodology the following issues have been identified which may enhance the level of accuracy and completeness of the MP:						
			N/A						

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
C.3. Management System (VVS, § 217 (a) (iii)) <i>Check if the GHG data monitoring system can be assessed as appropriate.</i> <i>In case reference is made to a (certified) company quality management system, check if all CDM related monitoring procedures have been fully integrated in the project participant's quality management system.</i> <i>In case of a stand-alone system, check how the GHG management system has been implemented and effectiveness is ensured.</i>	/QA/ /IM01/ /IM02/ /LOG/ /MM/ /O&M/ /TCR/	<i>Description:</i> The management system is described in the MR. The project owner has established an appropriate monitoring and management system for the project. All CDM related monitoring procedures have been fully integrated in the project participant's quality management system. The GHG management system has been implemented in accordance with the registered PDD and the effectiveness is ensured. <i>Verifier's action:</i> The QA/QC Procedure, Log, Monitoring Manual, Operation and Maintenance Records and training materials were checked by the verification team during on site visit. <i>Conclusion:</i> The GHG data monitoring system is assessed as appropriate.	OK	OK
C.4. Metering diagram (EB 75, Annex 7, C; PS §196) <i>Check first if the MR includes a metering diagram showing all relevant monitoring points.</i> <i>Check further if this diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.</i>	/PS/ /MR/ /IM01/ /PWD/	<i>Description:</i> The MR includes metering diagram with all relevant monitoring points, and the diagram reflects the actual situation and is in line with registered PDD and the applied methodology. <i>Verifier's action:</i> The MR has been verified against PDD and on-site observation and interview with project operators. <i>Conclusion:</i> It is confirmed that the metering diagram reflects the actual situation and is in line with the registered PDD and with the requirements of the applied methodology.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
C.5. Roles and Responsibilities (EB 75, Annex 7, C; PS §196) <i>Check if all roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan. Please consider the complete data trail from raw data generation to submission of the final data.</i> <i>Identify, if relevant personnel w.r.t. monitoring has been exchanged?</i> <i>If so, have appropriate training measures been carried out.</i> <i>In case of changes, assure that the implemented monitoring procedures have not been affected.</i>	/PS/ /IM01/ /QA/ /TCR/ /MR/ /MM/	<i>Description:</i> Roles and responsibilities are clearly stated in the MR. The financial department, production department and the other relevant department were clearly defined and carried out their responsibilities. Also the CDM manager is charged for all the issues related to CDM. The relevant personnel w.r.t. monitoring was not exchanged during this monitoring period. <i>Verifier's action:</i> The certificates of the appointed person, Monitoring Manual, staff training records have been checked and the roles have been checked against the PDD and MR. <i>Conclusion:</i> All roles and positions of each person in the GHG data management process are clearly defined and implemented as stated in the monitoring plan.	OK	OK
C.6. Emergency procedures for the monitoring system (EB 70 Annex 11, C; PS §196) <i>Check, as appropriate, whether relevant emergency procedures for the monitoring system have been included in the MR and assess whether these procedures have been implemented, when required</i>	/PS/ /QA/ /IM01/ /LOG/ /O&M/ /MM/	<i>Description:</i> Emergency procedures for monitoring system are stated in the MR. The emergency procedures of meters and the biomass residues have been determined. Furthermore, if the emergency occurs, the Distributed Control System (DCS) will automatically shut off the boilers and no CER will be claimed for the related period. <i>Verifier's action:</i> The project operation records, Monitoring Manual, LOG and	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		O&M procedure and records have been checked and responsible staff has been interviewed. <i>Conclusion:</i> The relevant emergency procedures for the monitoring system have been included in the MR and assessed as appropriate.		
C.7. Data archive and data protection (PS §56 b) Check whether all records of monitoring parameters are archived according to the monitoring plan. Assess further whether appropriate measures have been taken in order to avoid unintended or intended manipulation or loss of the measured data.	/QA/ /IM01/ /EBS/ /PDD/ /LOG/ /PDD/	<i>Description:</i> Data archive and data protection procedure have been stated in the MR. The monitoring data including paper and electronic version, electricity sales/purchase receipts of every month and other CDM related documents should be archived by the project owner. And all of the materials will be kept until 2 years after the end of the total credit period of the project. <i>Verifier's action:</i> The records of the monitoring data and the hard & soft copy have been checked. The operational daily log, daily and monthly electricity record, monthly invoices and electricity transaction notes are checked. <i>Conclusion:</i> The data is assessed to be appropriate. All data has been archived according to monitoring plan. The measures taken by the project owner and grid company could ensure the data well to be protected and frozen.	OK	OK
D. Data and parameters				
D.1. Data and Parameters fixed ex ante				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
a) Compliance with registered PDD (EB 70 Annex 11; D1) <i>Check whether the value applied is in compliance with the registered PDD.</i>	/PDD/ /MR/ /dna-HP/ /unfccc/ /EB69-Annex3/	<i>Description:</i> The Emission Factor $EF_{grid,CM,y}$ and Global warming potential for CH_4 GWP_{CH_4} have been indicated in the registered PDD. The two parameters have been involved in the MR as the ex-ante determined value. An additional value ($25tCO_2e/tCH_4$) for GWP_{CH_4} has been added under value applied in D.1 of MR for the second commitment period based on EB69 Annex 3. <i>Verifier's action:</i> The registered PDD, MR as well as UNFCCC (EB 69 Annex 3) and China DNA webpage have been checked. <i>Conclusion:</i> The values applied are correctly applied and in compliance with the registered PDD and relevant EB decisions.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
b) Compliance with the applied methodology (EB 70 Annex 11; D1) <i>Check whether the value applied is in compliance with the applied methodology or any other tool.</i>	/PDD/ /MR/ /ACM0018/ / /unfccc/ /EB69-Annex3/	<i>Description:</i> The grid Emission Factor $EF_{grid,CM,y}$ and Global warming potential for CH_4 GWP_{CH4} have been indicated in the registered PDD. $EF_{CO_2,grid,y}$ has been involved in MR as the ex-ante determined value. For GWP_{CH4}, 21 is used for the first commitment period, and 25 is used for the second commitment period. During this monitoring period, according to the methodology, an additional value (25 tCO₂e/tCH₄) for GWP_{CH4} has been added under value applied in D.1 of MR according to EB69-Annex3 which is based on decision 4/CMP.7. And the updated value 25 is used for emission reduction calculation from 01/01/2013. <i>Verifier's action:</i> The registered PDD, applied methodology ACM0018, relevant EB decisions and MR have been checked. <i>Conclusion:</i> The values applied are in compliance with the registered PDD and relevant EB decisions as well as the methodology and tools.	OK	OK
D.2. Data and Parameters monitored				
D.2.1. Biomass residues categories and quantities used in the project activity				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the</i>	/IM01/ /PDD/ /ACM0002/	<i>Description:</i> As per registered PDD and in line with related methodology four categories of biomass residues are defined (peach, pear and apple branches and wood scrap). The categories of biomass residues used are monitored visually by plant staff. Further at	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/CAL/ /XLS/ /EBS/ /MRD/ /LOG/	the weighing bridge the type and category of biomass residue delivered is noted and recorded. Any new delivered and thereafter used type or category of biomass residue is identified first at the weighing bridge thereafter by the staff feeding the biomass into the hopper. Each type and category of biomass residue is stored at a specific location onsite separately. The quantity used (combusted) for each category in the project activity is monitored by electronic belt scale. The electronic belt scale measures the weight on wet basis. The value is then used to calculate the weight on dry basis adjusted by the corresponding moisture content. The data aggregation procedure applied by the PP is shown as follow: 1. The quantity of each category of biomass residues used in the project activity is monitored by electronic belt scale, the operators read the value from the electronic belt scale for each category of the biomass residue, and issue the daily reports. The daily reports record the quantities of each category combusted per day (DAL-2=ODL). 2. Based on the daily reports of a month, the PP issues a corresponding monthly report. The sum of the quantities of each category of biomass residue combusted per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). <i>Verifier's action:</i> It was verified by on-site interview and observations and cross checking with daily and monthly record of moisture content of biomass combusted, daily and monthly reports of electronic belt scale, registered PDD and applied methodology against the ER		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on the underlying original data (DAL-2=ODL) for six out of the 12 months, the verification team calculated the data aggregation completely independent from the calculation provided by the PP (monthly values from daily records and final reported value from monthly values). 100% of the monthly and about 50% of the daily reports have been verified. <i>Conclusion:</i> Based on onsite observation and document check is can be confirmed that no additional new type or category of biomass residue has been used during this monitoring period compared to the registered PDD.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i>	/CAL/ /BRBS/ /TCR/ /LOG/ /MCBR/ /CMA/ /QA/ /IM01/	<i>Description:</i> The type and categories of biomass residues used are monitored visually by plant staff. Further at the weighing bridge the category of biomass residue delivered is noted and recorded. Any new delivered and thereafter used category of biomass residue is identified first at the weighing bridge thereafter by the staff feeding the biomass into the hopper. Each type and category of biomass residue is stored at a specific location onsite separately. The quantity used (combusted) for each category in the project	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>		activity is monitored by electronic belt scale with an accuracy of 0.5 and recorded daily and aggregated monthly. In addition, as per monitoring plan the value is cross-checked with an annual energy balance that is based on purchased quantities and stock changes. The Electronic Belt scale measures the weight on wet basis. The value on wet basis is used to calculate the weight on dry basis considering the corresponding moisture content. The calculation of dry matter is conducted by the project owner and is checked during their internal audit. QA/QC procedure for electronic belt scale calibration maintenance and recording; procedure for monitoring staff training and competence are established and implemented. The data flow and protection process was observed during the on-site verification. The values have been cross-checked by the verification team with a mass and energy balance for plausibility check. As per QA/QC procedure an internal audit has been conducted to check the calculation done by the related staff. The calculation is done by the operation staff each day and every month, then the CDM Manager checks and reproduces the data. Hence, issues the internal audit record. If mistakes are identified, the CDM manager will record and ask the operation staff to correct the data. <i>Verifier's action:</i> It was verified by cross checking the daily and monthly reports of		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		electronic belt scale, monthly biomass residues purchased quantities, biomass residues stock record, internal audit reports against the MR. Besides the calibration certificate of Electronic Belt scale (including accuracy class and calibration frequency), dated on 2011-08-28 and 2012-08-27, valid to 2013-08-26 was issued by Xuzhou Institute of Measurement & Testing Technology. Certificate of Metrological Authorization of Xuzhou Institute of Measurement & Testing Technology was checked by the verification team. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan. By check of the calibration certificates it can be confirmed that the electronic belt scale was duly calibrated for this entire monitoring period. QA/QC procedures were established and requirements are fulfilled.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details</i>	/MR/ /BRBS/ /TCR/ /LOG/ /MCBR/ /QA/ /XLS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> Biomass residues categories and quantities used in the project activity during period 2012-04-01 to 2013-03-31 are reported for each category in the MR based on the monthly reports. <i>Verifier's action:</i> By means of checking the ER-spreadsheet against the daily and monthly reports, monthly biomass residues purchased quantities, monthly biomass residues stock record, daily and monthly moisture record, the internal audit record and daily log.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>and descriptions of the CARs raised.</i>		<i>Conclusion:</i> The value is correct.		
D.2.2. BR_{PJ,n,y}				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /BRBS/ /MCBR/ /XLS/	<i>Description:</i> BR_{PJ,n,y} is monitored by electronic belt scale. The quantity used (combusted) for each category in the project activity is monitored by electronic belt scale. The electronic belt scale measures the weight on wet basis. The value is then used to calculate the weight on dry basis adjusted by the corresponding moisture content. As per registered PDD and in line with related methodology four categories of biomass residues are defined (peach, pear and apple branches and wood scrap). The data aggregation procedure applied by the PP is shown as follow: 1. The quantity of each category of biomass residues used in the project activity is monitored by electronic belt scale, the operators read the value from the electronic belt scale for each category of the biomass residue, and issue the daily reports. The daily reports record the quantities of each category combusted per day (DAL-2=ODL). 2. Based on the daily reports of a month, the PP issues a corresponding monthly report. The sum of the quantities of each category of biomass residue combusted per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). The monitoring value of this parameter is same to the value of D.2.1 "Biomass residues categories and quantities used in the	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		project activity”, the relevant information refer to the column of D.2.1. <i>Verifier’s action:</i> It was verified by on-site interview and observations and cross checking with daily and monthly record of moisture content of biomass combusted, daily and monthly reports of electronic belt scale, registered PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on the underlying original data (DAL-2=ODL) for six out of the 12 months, the verification team calculated the data aggregation completely independent from the calculation provided by the PP (monthly values from daily records and final reported value from monthly values). 100% of the monthly and about 50% of the daily reports have been verified. <i>Conclusion:</i> Based on onsite observation and document check is can be confirmed that no o additional new type or category of biomass residue has been used during this monitoring period compared to the registered PDD.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243)	/CAL/ /BRBS/	<i>Description:</i> The quantity used (combusted) for each category in the project	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/TCR/ /LOG/ /MCBR/ /CMA/ /QA/ /IM01/	activity is monitored by electronic belt scale with an accuracy of 0.5 and recorded daily and aggregated monthly. In addition, as per monitoring plan the value is cross-checked with an annual energy balance that is based on purchased quantities and stock changes. The Electronic Belt scale measures the weight on wet basis. The value on wet basis is used to calculate the weight on dry basis considering the corresponding moisture content. The calculation of dry matter is conducted by the project owner and is checked during the internal audit. QA/QC procedure for electronic belt scale calibration maintenance and recording; procedure for monitoring staff training and competence are established and implemented. The data flow and protection process was observed during the on-site verification. The values have been cross-checked by the verification team with a mass and energy balance for plausibility check. As per QA/QC procedure an internal audit has been conducted to check the calculation done by the related staff. The calculation is done by the operation staff each day and every month, then the CDM Manager checks and reproduces the data. Hence, issues the internal audit record. If mistakes are identified, the CDM manager will record and ask the operation staff to correct the data. <i>Verifier's action:</i> It was verified by cross checking the daily and monthly reports of electronic belt scale, monthly biomass residues purchased quantities, biomass residues stock record, internal audit reports		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		against the MR. Besides the calibration certificate of Electronic Belt scale (including accuracy class and calibration frequency), dated on 2011-08-28 and 2012-08-27, valid to 2013-08-26 was issued by Xuzhou Institute of Measurement & Testing Technology. Certificate of Metrological Authorization of Xuzhou Institute of Measurement & Testing Technology was checked by the verification team. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan. By check of the calibration certificates it can be confirmed that the electronic belt scale was duly calibrated for this entire monitoring period. QA/QC procedures were established and requirements are fulfilled.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /BRBS/ /TCR/ /LOG/ /MCBR/ /QA/ /LOG/ /XLS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> BR_{PJ,n,y} during period 2012-04-01 to 2013-03-31 are reported for each category in the MR based on the monthly reports. <i>Verifier's action:</i> By means of checking the ER-spreadsheet against the daily and monthly reports, monthly biomass residues purchased quantities, monthly biomass residues stock record, daily and monthly moisture monitoring record, the internal audit record and daily log. <i>Conclusion:</i>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		The correctness is confirmed.		
D.2.3. BR_{n,B1/B3,y}				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /BRBS/ /MCBR/ /XLS/	<i>Description:</i> BR_{n,B1/B3,y} is monitored by electronic belt scale. The quantity used (combusted) for each type and category in the project activity is monitored by Electronic Belt scale. The electronic belt scale measures the weight on wet basis. The value is then used to calculate the weight on dry basis adjusted by the corresponding moisture content. As per registered PDD and inline with related methodology four categories of biomass residues are defined (peach, pear and apple branches and wood scrap). The data aggregation procedure applied by the PP is shown as follow: 1. The quantity of each category of biomass residues used in the project activity is monitored by electronic belt scale, the operators read the value from the electronic belt scale for each category of the biomass residue, and issue the daily reports. The daily reports record the quantities of each category combusted per day (DAL-2=ODL). 2. Based on the daily reports of a month, the PP issues a corresponding monthly report. The sum of the quantities of each category of biomass residue combusted per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). The monitoring value of this parameter is same to the value of D.2.1 "Biomass residues categories and quantities used in the	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		project activity”, the relevant information refer to the column of D.2.1. <i>Verifier’s action:</i> It was verified by on-site interview and observations and cross checking with daily and monthly record of moisture content of biomass combusted, daily and monthly reports of electronic belt scale, registered PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on the underlying original data (DAL-2=ODL) for six out of the 12 months, the verification team calculated the data aggregation completely independent from the calculation provided by the PP (monthly values from daily records and final reported value from monthly values). 100% of the monthly and about 50% of the daily reports have been verified. <i>Conclusion:</i> Based on onsite observation and document check is can be confirmed that no additional new type or category of biomass residue has been used during this monitoring period compared to the registered PDD.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243)	/CAL/ /BRBS/	<i>Description:</i> The quantity used (combusted) for each category in the project	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/TCR/ /LOG/ /MCBR/ /CMA/ /QA/ /IM01/	activity is monitored by electronic belt scale with an accuracy of 0.5 and recorded daily and aggregated monthly. In addition, as per monitoring plan the value is cross-checked with an annual energy balance that is based on purchased quantities and stock changes. The electronic belt scale measures the weight on wet basis. The value on wet basis is used to calculate the weight on dry basis considering the corresponding moisture content. The calculation of dry matter is conducted by the project owner and is checked during the internal audit. QA/QC procedure for electronic belt scale calibration maintenance and recording; procedure for monitoring staff training and competence are established and implemented. The data flow and protection process was observed during the on-site verification. The values have been cross-checked by the verification team with a mass and energy balance for plausibility check. As per QA/QC procedure an internal audit has been conducted to check the calculation done by the related staff. The calculation is done by the operation staff each day and every month, then the CDM Manager checks and reproduces the data. Hence, issues the internal audit record. If mistakes are identified, the CDM manager will record and ask the operation staff to revise the data. <i>Verifier's action:</i> It was verified by cross checking the daily and monthly reports of electronic belt scale, monthly biomass residues purchased quantities, biomass residues stock record, internal audit reports		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		against the MR. Besides the calibration certificate of Electronic Belt scale (including accuracy class and calibration frequency), dated on 2011-08-28 and 2012-08-27, valid to 2013-08-26 was issued by Xuzhou Institute of Measurement & Testing Technology. Certificate of Metrological Authorization of Xuzhou Institute of Measurement & Testing Technology was checked by the verification team. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan. By check of the calibration certificates it can be confirmed that the electronic belt scale was duly calibrated for this entire monitoring period. QA/QC procedures were established and requirements are fulfilled.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /BRBS/ /TCR/ /LOG/ /MCBR/ /QA/ /LOG/ /XLS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The BR_{n,B1/B3,y} during period 2012-04-01 to 2013-03-31 are reported for each type and category in the MR based on the monthly reports. <i>Verifier's action:</i> By means of checking the ER-spreadsheet against the daily and monthly reports, monthly biomass residues purchased quantities, monthly biomass residues stock record, daily and monthly moisture monitoring record, the internal audit record and daily log.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<i>Conclusion:</i> The correctness is confirmed.		
D.2.4. For biomass residues categories for which scenarios B1:, B2: or B3: is deemed a plausible baseline alternative, project participants shall demonstrate that this is a realistic and credible alternative scenario				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /BRBS/ /MCBR/ /XLS/ /BRCR/	<i>Description:</i> As per registered PDD and in line with related methodology four categories of biomass residues are defined (peach, pear and apple branches and wood scrap).. The quantity of each category of biomass residues available in the region is at least 25% larger than the quantity of biomass residues of that type which is utilized in the region. The quantity of available biomass residues and their usage within the region is derived for each category from the Biomass Resources Collection Special Report issued by MI First Design & Research Institute Co., Ltd. in Mar. 2013. An independent third party entity. The types and categories of biomass residues used in this project are monitored visually by plant staff. Further at the weighing bridge the type and category of biomass residue delivered is noted and recorded. Any new delivered and thereafter used category of biomass residue is identified first at the weighing bridge thereafter by the staff feeding the biomass into the hopper. Each category of biomass residue is stored at a	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		specific location onsite separately. The quantity of each type and category of biomass residue used is monitored by an electronic belt scale. Please refer to checklist point D.2.1 for further details. <i>Verifier's action:</i> It was verified by on-site interview and observations and cross checking with Biomass Resources Collection Special Report issued by MI First Design & Research Institute Co., Ltd. in Mar. 2013, calibration records, daily and monthly biomass reports, registered PDD and applied methodology against the ER calculation spreadsheet. Also the accreditation of MI First Design & Research Institute Co. Ltd. has been reviewed. <i>Conclusion:</i> No additional new type of biomass residue has been used during this monitoring period compared to the registered PDD.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line</i>	/CAL/ /BRBS/ /TCR/ /LOG/ /MCBR/ /CMA/ /QA/ /IM01/ /BRCR/	<i>Description:</i> The type and categories of biomass residues used are monitored visually by plant staff. Further at the weighing bridge the category of biomass residue delivered is noted and recorded. Any new delivered and thereafter used category of biomass residue is identified first at the weighing bridge thereafter by the staff feeding the biomass into the hopper. Each type and category of biomass residue is stored at a specific location onsite separately. The quantity used (combusted) for each category in the project activity is monitored by Electronic Belt scale with an accuracy of 0.5 and recorded daily and aggregated monthly.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>with the latest EB guidance.</i>		The quantity of available biomass residues and their usage within the region is derived for each category from the Biomass Resources Collection Special Report issued by MI First Design & Research Institute Co., Ltd. in Mar. 2013 which is a qualified third party. An independent third party entity. For further information on QA/QC procedure please refer also to checklist point D.2.1. <i>Verifier's action:</i> By means of onsite visit and interview with related staff personnel. Further by cross checking the Biomass Resources Collection Special Report, daily and monthly biomass residues reports, monthly biomass residues purchased quantities, monthly biomass residues stock record and calibration records of the Electronic Belt scale against the MR, Internal audit record and ER sheet against the MR. Also the accreditation of MI First Design & Research Institute Co. Ltd. has been reviewed. QA/QC was verified by means of on-site interview and observation, cross check of relevant evidences, like procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence, internal audit record and daily log. By check of the calibration certificates it can be confirmed that the electronic belt scale was duly calibrated for this entire monitoring period. <i>Conclusion:</i> The accuracy of the belt scale and the QA/QC procedure are confirmed as appropriate.		
c) Correctness	/MR/	☒ Correct ☐ Not correct (initial assessment)	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
(VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/BRBS/ /TCR/ /LOG/ /MCBR/ /QA/ /LOG/ /XLS/ /BRCR/	<i>Description:</i> The Biomass residues categories and quantities used in the project activity during period 2012-04-01 to 2013-03-31 are reported in the MR based on the monthly reports. The quantity of available biomass residues and their usage within the region is derived for each category from the Biomass Resources Collection Special Report issued by MI First Design & Research Institute Co., Ltd. in Mar. 2013 which is a qualified third party. <i>Verifier's action:</i> By means of checking the Biomass Resources Collection Special Report, ER-spreadsheet against the monthly reports, monthly biomass residues purchased quantities, monthly biomass residues stock record, the internal audit record and daily log. Also the accreditation of MI First Design & Research Institute Co. Ltd. has been reviewed. <i>Conclusion:</i> The correctness is confirmed. Scenarios B1, B3 is deemed a plausible baseline alternative as the available biomass is at least 25% higher compared to the total biomass utilized in the region including the project activity.		
D.2.5. FR_{f,m}				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the</i>	/IM01/ /PDD/ /ACM001 8/	<i>Description:</i> FR_{f,m} is monitored by electronic truck scales 1# and 2# for each truck load. The weight of each incoming truck is measured by electronic truck scale 1#. Then the truck drops the biomass residue to a	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/CAL/ /CMA/ /BRBS/ /MCBR/ /XLS/ /TL/	determined stock ground according to the category of the biomass residue. Each category of biomass residue is stocked separately, no mix of the category occurs which is confirmed by means of on-site investigation^{/IMO1/} and checking the monitoring manual^{/IMM/}. After unloading the tare weight of the empty truck is measured by the electronic truck scale 2#. The net truck load is calculated as the difference of the two measurements from electronic truck scale 1# (gross weight) and 2# (tare weight). The data aggregation procedure applied by the PP is shown as follow: 1. The quantity of biomass residues transported to the project site is monitored by electronic truck scales 1# and 2#. The related operators read the quantities value from the computer which is connected to the electronic truck scales 1# and 2# for each category of the biomass residue. The connected monitoring system provides a print-out for each truck, the weighing note. The weighing notes record the quantities of each truck (gross, tare, net weight), biomass category as well as delivery date and supplier name transported to the site (DAL-3=ODL). 2. Based on the weighing notes for all deliveries (trucks) per day the sum of the quantities of each category transported per day to the site is calculated and the final result recorded in the daily report (DAL-2). 3. Based on the daily reports of a month, the PP issues a corresponding monthly report. The sum of the quantities of each category of biomass residue transported per day to the site is the final result as shown in the monthly report (DAL-1). 4. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0).		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<i>Verifier's action:</i> It was verified by on-site interview and observations and cross checking with calibration records, daily and monthly biomass reports, moisture content of biomass transported for every truck load, registered PDD and applied methodology against the ER calculation spreadsheet. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on the daily reports (DAL-2) for six out of the 12 months, the verification team calculated the data aggregation completely independent from the calculation provided by the PP (monthly values from daily records (DAL-2) and final reported value from monthly values (DAL-1)). 100% of the monthly and about 50% (915 of 1825 values) of the daily reports have been verified during onsite visit. Furthermore, the values in the daily reports (DAL-2) have been checked on a sample basis against the weighing notes (DAL-3=ODL). During this monitoring period, there are 365 days and 21,095 weighing notes. Hence, the values in the daily reports have been checked on a sample basis against the weighing notes. Almost more than 2,000 weighing notes of 30 days were checked by the verification team during the on-site verification. Hence, more than the maximum data to be checked according to random sampling of the weighing notes have been verified (see also chapter 5.9 of this report). Based on the values from		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		the daily reports (DAL-2), and based on the underlying original data (ODL) as well as monthly reports (DAL-1), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. The values in the weighing notes are measured by weighing bridge (Electronic Truck scales 1# and 2#). The net weight delivered is derived from the gross and tare weight when truck arrives and leaves the site. Both values are noted down and printed by computer by related staff. The same has been witnessed during the on-site visit. <i>Conclusion:</i> The measurement method is in line with the registered PDD and the applied methodology ACM0018.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/CAL/ /BRBS/ /TCR/ /LOG/ /MCBR/ /CMA/ /QA/ /IM01/	<i>Description:</i> FR_{f,m} is monitored by electronic truck scales 1# and 2# with accuracy of class III, recorded for each truck load on daily basis and aggregated monthly. In addition, the value is cross-checked with the purchased quantities and stock changes. The calculation is conducted by the project owner and checked during internal audit. A QA/QC procedure for electronic truck scale calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site verification. The calculations done by the operation staff each day and every month, are checked and reproduced by the CDM Manager.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		Hence, he issues the internal audit record accordingly. If mistakes are identified, the CDM manager will record the mistakes and request the operation staff to correct the data. During this monitoring period, no mistakes in the calculation have been observed. Further the verification team conducted a mass and energy balance of input and output data for plausibility check. <i>Verifier's action:</i> The accuracy and calibration was verified by cross checking calibration certificate of electronic truck scale 1# and 2# (including accuracy class and calibration frequency), dated on 2012-03-01, 2012-08-31 and 2013-03-31 valid to 2013-08-31 issued by Dangshan County Quality Supervision and Technology Station. Certificate of Metrological Authorization of Dangshan County Quality Supervision and Technology Station. Further by means of reviewing the QA/QC procedure, staff training records, sample copy of operator certificates organization chart as well as interviews with staff and internal audit record and check of ER sheet against the MR. <i>Conclusion:</i> The accuracy of equipment used for monitoring is as reported and calibrated in accordance with the monitoring plan. The truck scales are duly calibrated for this entire monitoring period. QA/QA procedures were established and requirements are fulfilled. As per QA/QC procedure the calculations made have been checked by the internal audit.		
c) Correctness	/MR/ /BRBS/	☒ Correct ☐ Not correct (initial assessment)	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
(VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/TCR/ /LOG/ /MCBR/ /QA/ /LOG/ /XLS/	<i>Description:</i> FR_{f,m} during period 2012-04-01 to 2013-03-31 are reported in the MR based on the monthly biomass reports. <i>Verifier's action:</i> By means of checking the ER-spreadsheet against the monthly and daily reports nest to weighing notes, moisture content of biomass transported for every truck load, monthly biomass residues purchased quantities, monthly biomass residues stock record, the internal audit record and daily log. <i>Conclusion:</i> The value of FR_{f,m} is correct.		
D.2.6. EG_{PJ,gross,y}				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /XLS/ /EBS/ /CMA/	<i>Description:</i> EG_{PJ,gross,y} is measured continuously by Meter M1 with accuracy of 0.5s and recorded daily and monthly. Monthly at 24:00h on last day of each month in this monitoring period. The meter is located in the project site after the generator which measures all the total gross amount of electricity generated of the power plant. The meter readings are recorded by PP. The power generation is calculated by the meter reading multiply with the magnification. The magnification of 60,000 is derived from the calibration certificate for PT & CT. Neither failure nor exchange of M1 was detected during the monitoring period. The data aggregation procedure applied by the PP is shown as follow:	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>		1. The $EG_{PJ,gross,y}$ is monitored by Meter M1, the operators read the value from the Meter M1 at 8:00, 16:00 and 24:00, three times per day. As the operators have three shifts per day, 8 hours is for one shift, hence there are three meter values per day. Based on the difference between the two meter values on 0:00 (24:00 of yesterday) and 24:00 for that day the power generation for that day is determined. Accordingly the operator issues the daily reports. The daily reports record the quantities of gross power generation per day (DAL-2=ODL). 2. Based on the daily reports for a month, the PP issues a corresponding monthly report. The sum of the quantities of gross power generation per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). <i>Verifier's action:</i> By means of verification by on-site interview and observations and cross checking with calibration records, electricity balance sheet, registered PDD and applied methodology against the ER calculation spreadsheet. Calibration Certificate for PT & CT issued by Anhui Electric Power Measurement & Testing Centre on 2011-07-26 and Certificate of Metrological Authorization of Anhui Electric Power Measurement & Testing Centre were checked by the verification team. It is confirmed that the magnification is correct and verified by the accredited party. Furthermore, the following actions have been taken by the verification team to check the correctness of the data		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on monthly reports and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. 100% of the daily and monthly reports have been verified. The values have been crosscheck with electricity sales invoices. <i>Conclusion:</i> The measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology. No mistake has been identified.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/CAL/ /CMA/ /EBS/ /MRD/ /NS- METER/ /JJG/ /TCR/ /QA/ /IM01/ /LOG/ /O&M/	<i>Description:</i> EG_{PJ,gross,y} is measured continuously by Meter M1 with accuracy of 0.5s and recorded daily and monthly. Monthly at 24:00h on last day of each month. The calibration of M1 was performed annually by qualified third party “Anhui Electric Power Measurement & Testing Centre” according to national industry standard^{/NS-METER&/JJG/} and records maintained. The magnification of 60,000 is derived from the calibration certificate for PT & CT. Calibration Certificate for PT & CT issued by Anhui Electric Power Measurement & Testing Centre on 2011-07-26 and Certificate of Metrological Authorization of Anhui Electric Power Measurement & Testing Centre were checked by the verification team. It is confirmed that the magnification is correct as verified by the certificate by accredited third party. The recording was done by related operational staff and	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		checked by the internal audit. And the electricity generation and auxiliary consumption are crosschecked with electricity sales and electricity purchasing record. A QA/QC procedure for meter calibration maintenance and recording as well as a procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site verification. In case the meter M1 is out of order, the main electricity supply meter readings from meter M3 will be used to verify the monitored values and there is a check meter M4 back up for the electricity supply meter. The calibration of M1 was performed yearly by a qualified 3rd party entity according to national industry standard and records maintained. QA/QC procedure for check the calculation was done by the internal audit of the project. The recording was done by the operation staff each day and every month, then the CDM Manager checked the data. After that, the internal audit record is issued. If there are some mistakes, the CDM manager will record and ask the operation staff to revise the data. During this monitoring period, no mistakes of the calculation were observed. <i>Verifier's action:</i> The monitoring frequency and the accuracy of equipment have been verified by checking related calibration records. The values reported have been verified by cross checking the monthly power invoices,, daily and monthly electricity reports, meter readings against the MR, Internal audit record and ER sheet against the MR. Further the related operational staff and		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		management has been interviewed. The QA/QC procedure was verified by means of on-site interview and observation, cross check of relevant evidences, like procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence, internal audit record and daily log. <i>Conclusion:</i> The accuracy of the equipment used for monitoring is checked correct. Further the meter is calibrated at a frequency indicated as per registered monitoring plan. By means of check of the calibration certificates it can be confirmed that the meter was duly calibrated for this entire monitoring period. QA/QA procedures were established and requirements are fulfilled.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /EBS/ /MRD/ /QA/ /LOG/ /XLS/ /CAL/ /CMA/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The gross electricity generated ($EG_{PJ, gross, y}$) during period 2012-04-01 to 2013-03-31 is reported in the MR based on the monthly reports. The electricity generation and auxiliary consumption are crosschecked with electricity sales and electricity purchasing record. <i>Verifier's action:</i> By means of checking the ER-spreadsheet against the daily and monthly elec. reports, monthly electricity sales and electricity purchasing record, Calibration Certificate for PT & CT, , the internal audit record and daily log.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.		
D.2.7. $EG_{PJ,aux,y}$				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /XLS/ /EBS/ /CMA/	<i>Description:</i> $EG_{PJ,aux,y}$ is measured continuously by Meter M2 with accuracy of 0.5 and recorded daily and monthly at 24:00h on last day of each month in this monitoring period. The meter is located in the project site which measures the total electricity consumed by the power plant. The meter readings are recorded by PP. The power generation is calculated by the meter reading multiplied with the magnification. The magnification of 10,000 is derived from the calibration certificate for PT & CT. Neither failure nor exchange of M2 was detected during the monitoring period. The data aggregation procedure applied by the PP is shown as follow: 1. The $EG_{PJ,aux,y}$ is monitored by Meter M2, the operators read the value from the Meter M2 at 8:00, 16:00 and 24:00, three times per day. As the operators have three shifts per day, 8 hours is for one shift, hence there are three meter values per day. Based on the difference between the two meter values on 0:00 (24:00 of yesterday) and 24:00 for that day the power generation for that day is determined. Accordingly the operator issues the daily reports. The daily reports record the quantities of gross power generation per day (DAL-2=ODL). 2. Based on the daily reports for a month, the PP issues a	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		corresponding monthly report. The sum of the quantities of power consumption per day is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). <i>Verifier's action:</i> It was verified by on-site interview and observations and cross checking with calibration records, electricity balance sheet, registered PDD and applied methodology against the ER calculation spreadsheet. Calibration Certificate for PT & CT issued by Anhui Electric Power Measurement & Testing Centre on 2011-07-26 and Certificate of Metrological Authorization of Anhui Electric Power Measurement & Testing Centre were checked by the verification team. It is confirmed that the magnification is correct and verified by the accredited party. Furthermore, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (ODL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on the monthly reports and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. 100% of the daily and monthly reports have been verified. <i>Conclusion:</i>		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology. No mistake has been identified.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/CAL/ /CMA/ /EBS/ /MRD/ /NS-METER/ /JJG/ /TCR/ /QA/ /IM01/ /LOG/	<i>Description:</i> EG_{PJ,aux,y} is measured continuously by Meter M2 with accuracy of 0.5 and recorded daily and monthly. Monthly at 24:00h on last day of each month in this monitoring period. The calibration of M2 was performed annually by qualified third party "Suzhou City Power Supply Company" according to national industry standard^{/NS-METER/&JJG/} and records maintained. The magnification of 10,000 is derived from the Calibration Certificate for PT & CT. Calibration Certificate for PT & CT issued by Anhui Electric Power Measurement & Testing Centre on 2011-07-26 and Certificate of Metrological Authorization of Anhui Electric Power Measurement & Testing Centre were checked by the verification team. It is confirmed that the magnification is correct as verified by the certificate by accredited third party. The recording was done by related operational staff and checked by the internal audit. And the electricity generation and auxiliary consumption are crosschecked with electricity sales and electricity purchasing record. A QA/QC procedure for meter calibration maintenance and recording as well as a procedure for monitoring staff training and competence were established and implemented. The data flow and protection process was observed during the on-site verification. In case the meter M2 is out of order, the main electricity supply meter readings from meter M3 will be used to	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		verify the monitored values and there is a check meter M4 back up for the electricity supply meter. The calibration of M2 was performed yearly by a qualified 3rd party entity according to national industry standard and records maintained. QA/QC procedure for check the calculation was done by the internal audit of the project. The recording was done by the operation staff each day and every month, then the CDM Manager checked the data. After that, the internal audit record is issued. If there are some mistakes, the CDM manager will record and ask the operation staff to revise the data. During this monitoring period, no mistakes of the calculation were observed. <i>Verifier's action:</i> The monitoring frequency and the accuracy of equipment have been verified by checking related calibration records. The values reported have been verified by cross checking the monthly power invoices, daily and monthly electricity reports, meter readings against the MR, Internal audit record and ER sheet against the MR. Further the related operational staff and management has been interviewed. The QA/QC procedure was verified by means of on-site interview and observation, cross check of relevant evidences, like procedure for meter calibration maintenance and recording; procedure for monitoring staff training and competence, internal audit record and daily log. <i>Conclusion:</i> The accuracy of the equipment used for monitoring is checked		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		correct. Further the meter is calibrated at a frequency indicated as per registered monitoring plan. By means of check of the calibration certificates it can be confirmed that the meter was duly calibrated for this entire monitoring period. QA/QA procedures were established and requirements are fulfilled.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /EBS/ /MRD/ /QA/ /LOG/ /XLS/ /TCR/ /CAL/ /CMA/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The auxiliary electricity consumed ($EG_{PJ,aux,y}$) during period 2012-04-01 to 2013-03-31 is reported in the MR based on the monthly meters readings. And the electricity generation and auxiliary consumption are crosschecked with electricity sales and electricity purchasing record. <i>Verifier's action:</i> By means of checking the ER-spreadsheet against the monthly electricity sales and purchasing record, Calibration Certificate for PT & CT, daily and monthly electricity reports, the internal audit record and daily log. <i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.	OK	OK
D.2.8. $EG_{off-site,y}$				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was</i>	/IM01/ /PDD/ /ACM001	<i>Description:</i> $EG_{off-site,y}$ is measured continuously by meter(s) located in each biomass processing station. The total quantity of electricity consumed during this monitoring period for each biomass	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	8/ /XLS/ /ECO/	processing station was issued by Dangshan Power Supply Company^{/ECO/} and cross-checked with monthly electricity purchasing record. In registered PDD, it states that the EG_{off-site,y} is measured continuously and recorded annually. As the monitoring period is not a calendar year, the value was issued by Dangshan Power Supply Company just for this monitoring period. Neither failure nor exchange of any meter was detected during this monitoring period. <i>Verifier's action:</i> It was verified by on-site interview and observations and checking with statistic of electricity consumed off-site during this monitoring period by each meter located in each biomass processing station including information of each meter, i.e. type, serial no. accuracy, calibration information and EG_{off-site,y} issued by Dangshan Power Supply Company, registered PDD and applied methodology against the ER calculation spreadsheet. And the monthly electricity purchasing records are used for cross-check. <i>Conclusion:</i> The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology. No mistake has been identified.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance</i>	/CAL/ /CMA/ /NS-METER/ /JJG/	<i>Description:</i> EG_{off-site,y} is measured continuously by meter(s) located in each biomass processing station. The total quantity of electricity consumed in this monitoring period for each biomass processing station was issued by Dangshan Power Supply Company and cross-checked with monthly electricity purchasing record.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/TCR/ /ECO/	The recording was done by Dangshan Power Supply Company each month. Then the monthly electricity purchasing record is kept by each biomass processing station. Despite the recording is conducted by Dangshan Power Supply Company all the meters are calibrated by Suzhou City Power Supply Company covering this monitoring period, and the calibration frequency of one year is checked as in line with national industry standard^{/NS-METER/&JJG/}. QA/QC procedure for meter calibration maintenance and recording were established and implemented by Suzhou City Power Supply Company. In case any of the meters is out of order, the meter will be changed, and the conservative value during the time until the new meter is installed will be issued by Suzhou City Power Supply Company for ER calculation. During this monitoring period, no mistakes of the meters reading and no failure of the meter were observed. <i>Verifier's action:</i> The values have been verified with statistic of electricity consumed off-site during this monitoring period by meter(s) located in each biomass processing station and cross-checked with monthly electricity purchasing record. The accuracy and calibration was verified by cross checking calibration certificate of all the meters located in each biomass processing station covering this monitoring period, issued by Suzhou City Power Supply Company. Certificate of Metrological Authorization of Suzhou City Power Supply Company was checked by the verification team. The QA/QC procedure was		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		verified by means of on-site interview and observation and check of calibration report. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as correct. QA/QA procedures were established and requirements are fulfilled.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /ECO/ /XLS/ /CAL/ /CMA/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The electricity consumption of biomass processing stations (EG_{off-site,y}) during period 2012-04-01 to 2013-03-31 is reported in the MR based on statistic of electricity consumed off-site during this monitoring period by meter(s) located in each biomass processing station issued by Dangshan Power Supply company and crosschecked with electricity purchasing record by each biomass process station. <i>Verifier's action:</i> It was verified by on-site interview and observations and checking with Statistic of electricity consumed off-site during this monitoring period by meter(s) located in each biomass processing station EG_{off-site,y} issued by Dangshan Power Supply Company dated and the electricity consumption is crosschecked with electricity purchasing record by each biomass process station. <i>Conclusion:</i> The correctness is confirmed. No mistake has been identified.	OK	OK
D.2.9. NCV_{n,y}				

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /PDD/ /ACM001 8/ /NCV/ /XLS/ /RNCV/ /VER/	<i>Description:</i> NCV_{n,y} is analyzed by the reputed laboratory “Shandong Taishan Mineral Resources Examination Institute” according to relevant international standards <i>Testing Methods for Heat Value of Biomass Fuels</i> NY/T12-1985 for this monitoring period. The value of NCV on dry-basis for the four categories of biomass residues are reported by this laboratory. As per the registered PDD, the laboratory measures the NCV for each category of biomass residue at least every six months, taking at least three samples for each measurement. In this monitoring period, the laboratory measured two times, the results of the two times measurements are nearly same, and the average value is calculated and used in the calculation of ER. However, the Emission reduction calculation lacks specification how the stated value is derived from the six monthly values as this monitoring period is 12 months. <i>Verifier’s action:</i> It was verified by on-site interview and observations and cross checking with Report of Net calorific value of biomass residue measured by Shandong Taishan Mineral Resources Examination Institute, registered PDD and applied methodology against the ER calculation spreadsheet besides data from previous verification. <i>Conclusion:</i> The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology. No mistake has been identified.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/NCV/ /IM01/ /PDD/ /RNCV/	<i>Description:</i> NCV_{n,y} is analyzed by the reputed laboratory “Shandong Taishan Mineral Resources Examination Institute” according to relevant national standards and registered PDD in this monitoring period. The value of NCV for the four categories of biomass residues are reported by this laboratory. Certification of Shandong Taishan Mineral Resources Examination Institute is issued by National Accreditation Board for conformity assessment. By means of checking the Certification report, it is confirmed that this institute is certified this type of works/analysis. The laboratory measures the NCV for each category of the biomass residue at least every six months, taking at least three samples for each measurement. As per registered PDD, the consistency of the measurements should be checked by comparing the measurement results with measurements from previous years. In addition, during this monitoring period, the laboratory measured the NCV two times. The results of the two measurements are nearly same, and the average value is calculated and used in the calculation of ER. <i>Verifier’s action:</i> It was verified by checking with Report of Net calorific value of biomass residue measured by Shandong Taishan Minera Resources Examination Institute, the certification of the Shandong Taishan Mineral Resources Examination Institute, the registered PDD and applied methodology against the ER calculation spreadsheet. The value of this monitoring period has	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		been checked with the value in 1st monitoring period. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as controlled and calibrated in accordance with the monitoring plan. QA/QC procedures were established as required in the registered PDD.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /NCV/ /XLS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The Net calorific value of biomass residue category n was measured by Shandong Taishan Mineral Resources Examination Institute for two times in this monitoring period. And the values are crosschecked to be nearly the same. The average value is used and the calculation is checked. <i>Verifier's action:</i> By means of checking the Report of Net calorific value of biomass residue measured by Shandong Taishan Mineral Resources Examination Institute, previous measurements, registered PDD and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The values given in the monitoring report are correct based on lab test reports and sufficiently justified.	OK	OK
D.2.10. $NCV_{n,y} \cdot EF_{BR,n,y}$				
a) Measurement / Determination method (VVS, §§ 233, 236)	/IM01/ /PDD/ /ACM001	<i>Description:</i> $NCV_{n,y} \cdot EF_{BR,n,y}$ is a default value, which is derived from IPCC	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	8/ /XLS/ /ipcc/	2006 Default Value in accordance with the methodology ACM0018. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/IM01/ /PDD/ /ACM0018/ /XLS/ /ipcc/	<i>Description:</i> $NCV_{n,y} \cdot EF_{BR,n,y}$ is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. The IPCC publications are monitored annually to check if the value is still equal to the default value in the PDD. In this monitoring period, the value is still derived from IPCC 2006 Default Value. This is a default value. As per registered PDD, the QA/QC Procedure is not applicable. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		spreadsheet. <i>Conclusion:</i> Not applicable as this is a default value.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/ MR/ / QA/ / LOG/ / XLS/ / IPCC/ / PDD/ / ACM0018/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> $NCV_{n,y} \cdot EF_{BR,n,y}$ of 0.001971 is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. As per registered PDD and methodology ACM0018. The default CH ₄ emission factor of 0.0027 tCH ₄ /t biomass is used, the uncertainty can be deemed to be greater than 100%, resulting in a conservativeness factor of 0.73. Thus, in this case an emission factor of 0.001971 t CH ₄ /t biomass should be used. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.	OK	OK
D.2.11. Moisture content of the biomass residues				
a) Measurement / Determination method (VVS, §§ 233, 236)	/ IM01/ / PDD/	<i>Description:</i> Moisture content of the biomass residues type k is measured	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/ACM001 8/ /MCBR/ /XLS/	on-site via laboratorial analysis according to registered PDD and recorded by the PP. The equipment used in chemistry lab includes dry cabinet 1#&2# and electronic balance. The electronic balance measures the quantity of the samples before and after the sample is parched in the dry cabinet 1# or 2#. The difference is the water content. The moisture content of each category of biomass residue combusted in the power plant is measured and recorded daily by the PP as per the same principle described above. The data aggregation procedure applied by the PP is shown as follow: 1. The Moisture content of each category of biomass residue combusted per day in the power plant is measured on-site via laboratorial analysis. The laboratory assistants analyze and record the moisture content of each category of biomass residue combusted in the power plant per day, and issued the daily report (DAL-2=ODL). 2. Based on the daily reports of a month, the PP issues a corresponding monthly report. The average for each category of the moisture content from the daily report is the final result as shown in the monthly report (DAL-1). 3. Based on the monthly reports, the final monthly value was reported in the monitoring report (DAL0). <i>Verifier's action:</i> It was verified by on-site interview and observations and cross checking with daily and monthly moisture content measuring record of the moisture content of biomass combusted, job instruction of laboratorial analysis for moisture content		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		measuring against the registered PDD and applied methodology. For moisture content of each category of biomass residues combusted in the power plant, the following actions have been taken by the verification team to check the correctness of the data aggregation. The reported value in the MR (DAL0) has been recalculated by the verification team based on the values from the monthly reports (DAL-1). Based on the monthly values and the underlying original data (ODL), the verification team calculated the data aggregation completely independent from the calculation provided by the PP. 100% of the monthly reports have been verified. And more than 50% of the daily reports have been verified. <i>Conclusion:</i> The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology. No mistake has been identified.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i>	/IM01/ /PDD/ /ACM001 8/ /MCBR/ /XLS/ /CAL/ /CMA/	<i>Description:</i> The moisture content of the biomass residues type k is measured on-site via laboratorial analysis according to registered PDD. The equipment used in the laboratory includes dry cabinet 1# & 2# and electronic balance. The moisture content of the biomass residues type k was measured by electronic balance with accuracy of 0.001g and dry cabinet 1#&2# with accuracy of 1°C, and recorded daily for	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>		biomass combusted and every truck load for biomass transported in this monitoring period. Calibration certificate of electronic balance (including accuracy class and calibration frequency), dated on 2011-08-05 and 2012-08-04, valid to 2013-08-03, issued by Dangshan County Quality Supervision and Technology Station. Calibration certificate of dry cabinet 1# and 2#, dated on 2011-08-05 and 2012-08-04, valid to 2013-08-03, issued by Dangshan County Quality Supervision and Technology Station. The analysis, recording and calculation is done by the operation staff each day and every month. Then the CDM Manager checked the data. After that, the internal audit record is issued. If there are some mistakes, the CDM manager will record and ask the operation staff to correct the data. During this monitoring period, no mistakes of the original measurement were observed. <i>Verifier's action:</i> The accuracy was verified by on-site interview and observations and checking with the calibration report of the dry cabinet and electronic balance. The QA/QC procedure was verified by on-site interview with related staff and observations. Further the Monitoring Manual, Job Instruction for moisture analysis, procedure for monitoring staff training and competence, internal audit record and daily log against the ER spread sheet have been checked. <i>Conclusion:</i> The accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan. Based on the calibration certificates it is confirmed that the related		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		measurement equipment is duly calibrated for this entire monitoring period. QA/QC procedures were established as required in the registered PDD.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /MCBR/ /QA/ /LOG/ /XLS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> Moisture content of the biomass residues type k is measured continuously on-site via laboratory. The average value is used and the calculation is checked as not correct. <i>Verifier's action:</i> By means of checking the daily and monthly moisture content measuring record of the moisture content of biomass combusted, job instruction of laboratorial analysis for moisture content measuring, registered PDD and applied methodology against ER calculation spreadsheet. <i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.	OK	OK
D.2.12. D_{f,m}				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i>	/IM01/ /PDD/ /ACM001 8/ /RTD/ /XLS/	<i>Description:</i> D_{f,m} is derived from the registered PDD, and this value is the Return trip distance between the origin and destination of freight transportation activity which was determined when requesting for registration. During the monitoring period, the trucker reported the distance of the truck round trip between corresponding biomass	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>		processing stations. Then the project owner (staff at the weighing bridge) cross-checked the distances reported by the trucker with a map and record the higher/conservative value. <i>Verifier's action:</i> It was verified by on-site interview, observations and cross checking with each record of round trip distance between biomass processing stations and the project site for every truck load, map of the location of each biomass processing station, registered PDD and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> Each recorded value has been compared with the maximum distance as per registered PDD. It is found that all the values are lower than the maximum value.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/IM01/ /PDD/ /ACM001 8/ /RTD/ /XLS/ /CMA/ /QA/ /IM01/ /TCR/ /LOG/	<i>Description:</i> $D_{f,m}$ is derived from the registered PDD, and this value is the Return trip distance between the origin and destination of freight transportation activity which was determined when requesting for registration. During the monitoring period, the trucker reported the distance of the truck round trip between corresponding biomass processing stations. Then the project owner (staff at the weighing bridge) cross-checked the distances reported by the trucker with a map and record the higher/conservative value. The map was issued by a third party MI First Design & Research Institute Co., Ltd.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		PP checks consistency of distance records by comparing the distances sourced from maps. In this monitoring period, all the distances in the daily record for every truck load is nearly same to the distances in the map of the location for each process station. <i>Verifier's action:</i> It was verified by on-site interview, observations and cross checking with each record of round trip distance between biomass processing stations and the project site for every truck load, map of the location of each biomass processing station, certification of the third party MI First Design & Research Institute Co., Ltd, registered PDD and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> As no measurement equipment is involved no related calibration is required. Related QA/QC procedures were established as required in the registered PDD.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i>	/MR/ /RTD/ /QA/ /LOG/ /XLS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> $D_{f,m}$ is determined by recording of the truck round trip distance between biomass processing stations and the project site for every truck load. Map of the location of each biomass processing station was used to cross-check the distance. <i>Verifier's action:</i>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>		By means of checking with each record of round trip distance between biomass processing stations and the project site for every truck load, map of the location of each biomass processing station, certification of the third party MI First Design & Research Institute Co., Ltd, registered PDD and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> Each recorded value has been compared with the maximum distance as per registered PDD. It is found that all the values are lower than the maximum value. The value in the MR is checked as correct.		
D.2.13. $FF_{projectplant,i,y}$				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /XLS/ /CMA/ /FFPP/	<i>Description:</i> $FF_{projectplant,i,y}$ is measured continuously by flow meters with accuracy of 0.5 and recorded if fossil fuel is used. The two flow meters are located in the project site, on the pipe connecting the oil tank and the boiler. The volume of diesel consumed is calculated as the difference reading of the flow meters with serial number 11.031 and 11.032. The meter readings are recorded by PP each time when the consumption occurred. The quantity of $FF_{projectplant,i,y}$ is calculated by the volume multiplies by the density of diesel to derive the mass. Neither failure nor exchange of flow meters was detected during the monitoring period.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
of the PDD and the applied methodology.		Verifier's action: It was verified by on-site interview, observations and cross checking with meter readings record of the quantity of fossil fuel during the monitoring period, registered PDD and applied methodology against the ER calculation spreadsheet. Conclusion: The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/CAL/ /CMA/ /FFPP/ /QA/ /IM01/ /TCR/ /LOG/	Description: FF_{projectplant,i,y} is measured continuously by flow meters with accuracy of 0.5 and recorded if the fossil fuel used. The calibration of flow meters (including accuracy class and calibration frequency) was performed by qualified third party "Suzhou City Measurement Verification and Testing Station" dated on 2011-08-10 and 2012-08-09. It is confirmed that the calibration is verified by the accredited third party. QA/QC procedure for flow meters calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. QA/QC procedure for check the calculation was done by the internal audit of the project. The recording was done by the operation staff when the fuel was used, then the CDM Manager checked the data. After that, the internal audit record is issued. If there are some mistakes, the CDM manager will record and ask the operation staff to correct the data.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		During this monitoring period, no mistakes of the recording and calculation were observed. <i>Verifier's action:</i> The accuracy and calibration was verified by cross checking calibration certificate of the flow meters performed by qualified third party "Suzhou City Measurement Verification and Testing Station". Certificate of Metrological Authorization of Suzhou City Measurement Verification and Testing Station was checked by the verification team. QA/QC procedure was verified by means of on-site interview, observation and cross checking the calibration report and internal audit record. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as correct. It is confirmed that the measurement equipment was duly calibrated for this entire monitoring period. The QA/QC procedures are applicable and in line with the requirement in the registered PDD.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should</i>	/MR/ /IM01/ /PDD/ /ACM001 8/ /CAL/ /XLS/ /CMA/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The fuel consumption of $FF_{projectplant,i,y}$ during period 2012-04-01 to 2013-03-31 is reported in the MR based on the flow meters readings. The value of $FF_{projectplant,i,y}$ is 0. <i>Verifier's action:</i> By means of checking the readings of the flow meters against the record during the monitoring period. The meters have been	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
be given. <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/FFPP/	checked during the on-site verification. The meter reading is confirmed by the verification team. It is confirmed that the meter reading is not changed since 2012-03-31 and confirmed to be zero. <i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.		
D.2.14. $FF_{projectsite,i,y}$				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>	/IM01/ /PDD/ /ACM001 8/ /CAL/ /XLS/ /CMA/ /FFPS/	<i>Description:</i> $FF_{projectsite,i,y}$ is measured by the oiling machine with the accuracy of 0.3%, the volume of $FF_{projectsite,i,y}$ is measured and recorded for every refueling process. The readings from oiling machine are recorded by PP. The quantity of $FF_{projectsite,i,y}$ is calculated by the volume multiplied by the density of diesel to derive the mass. The measurement record is cross-checked with an annual energy balance that is based on purchased quantities and stock changes. Neither failure nor exchange of oiling machine was detected during the monitoring period. <i>Verifier's action:</i> It was verified by on-site interview, observations and checking with monthly diesel record for vehicle refueling of each vehicle used on-site, invoices of the diesel purchased monthly, stock records, registered PDD and applied methodology against the ER calculation spreadsheet.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		<i>Conclusion:</i> The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/QA/ /IM01/ /TCR/ /LOG/ /CAL/ /CMA/ /FFPS/	<i>Description:</i> FF_{projectsite,i,y} is measured by oiling machine with accuracy of 0.3% and recorded for every refueling process during this monitoring period. Calibration certificate of oiling machine (including the accuracy class and calibration frequency) dated on 2012-02-04, 2012-06-02, 2012-09-30 and 2013-01-28 was issued by Dangshan County Quality Supervision and Technology Station. Certification of metrological authorization of Dangshan County Quality Supervision and Technology Station has been checked by the verification team. It is confirmed that the calibration is verified by the accredited party. QA/QC procedure for Oiling Machine calibration maintenance and recording; procedure for monitoring staff training and competence were established and implemented. QA/QC procedure for check the calculation was done by the internal audit of the project. The recording was done by the operation staff when the fuel was used, then the CDM Manager checked the data. After that, the internal audit record is issued. If there are some mistakes, the CDM manager will record and ask the operation staff to correct the data. During this monitoring period, no mistakes of the recording and calculation were observed. <i>Verifier's action:</i>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		The accuracy and calibration was verified by cross checking calibration certificate of the oil machine performed by qualified third party “Dangshan County Quality Supervision and Technology Station”. Certificate of Metrological Authorization of Dangshan County Quality Supervision and Technology Station was checked by the verification team. QA/QC procedure was verified by means of on-site interview, observation and cross checking the calibration report and internal audit record. <i>Conclusion:</i> The accuracy of equipment used for monitoring is checked as correct. It is confirmed that the measurement equipment was duly calibrated for this entire monitoring period. The QA/QC procedures are applicable and in line with the requirement in the registered PDD.		
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	/MR/ /IM01/ /PDD/ /ACM001 8/ /CAL/ /XLS/ /CMA/ /FFPS/	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> The fuel consumption of FF_{projectsite,i,y} during period 2012-04-01 to 2013-03-31 is reported in the MR based on the recording for every refueling process. <i>Verifier’s action:</i> By means of checking the recording, cross-check against the MR and ER sheet. <i>Conclusion:</i> The values given in the monitoring report are correct and	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		sufficiently justified.		
D.2.15. NCV_{i,y}				
a) Measurement / Determination method (VVS, §§ 233, 236) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)). Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.	/IM01/ /PDD/ /ACM001 8/ /XLS/ /CESY/	<i>Description:</i> NCV_{i,y} is a default value, which is derived from “China Energy Statistical Yearbook 2011, Diesel NCV”.. <i>Verifier’s action:</i> It was verified by checking with registered PDD, China Energy Statistical Yearbook 2011 and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The measurement / determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology.	OK	OK
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies	/IM01/ /PDD/ /ACM001 8/ /XLS/ /CESY/	<i>Description:</i> NCV_{i,y} is a default value, which is derived from “China Energy Statistical Yearbook 2011, Diesel NCV”. <i>Verifier’s action:</i> It was verified by checking with registered PDD, China Energy	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.		Statistical Yearbook 2011 and applied methodology against the ER calculation spreadsheet. Conclusion: $NCV_{i,y}$ is a default value.		
c) Correctness (VVS, §§ 233, 236) Determine whether the value given in the monitoring report is correct or determined in a conservative manner. In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given. In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.	/MR/ /QA/ /LOG/ /XLS/ /CESY/ /PDD/ /ACM001 8/	☒ Correct ☐ Not correct (initial assessment) Description: $NCV_{i,y}$ is a default value, which is derived from “China Energy Statistical Yearbook 2011, Diesel NCV”. Verifier’s action: It was verified by checking with registered PDD, China Energy Statistical Yearbook 2011 and applied methodology against the ER calculation spreadsheet. Conclusion: The values given in the monitoring report are correct and sufficiently justified.	OK	OK
D.2.16. $EF_{CH_4, BR}$				
a) Measurement / Determination method (VVS, §§ 233, 236) Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation	/IM01/ /PDD/ /ACM001 8/ /XLS/ /ipcc/	Description: $EF_{CH_4, BR}$ is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. Verifier’s action: It was verified by checking with registered PDD, IPCC	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
level zero (DAL0)). <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the frequency of measurements as per the requirements.</i> <i>Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>		publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs.</i> <i>Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/IM01/ /PDD/ /ACM001 8/ /XLS/ /ipcc/	<i>Description:</i> EF_{CH4,BR} is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. The IPCC publications are monitored annually to check if the value is still equal to the default value in the PDD. In this monitoring period, the value is still derived from IPCC 2006 Default Value. IPCC 2006 is the latest version. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> Not applicable as this is a default value.	OK	OK
c) Correctness (VVS, §§ 233, 236)	/IM01/ /PDD/ /ACM001	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner.</i> <i>In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	8/ /XLS/ /ipcc/	EF_{CH4,BR} is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. As per registered PDD and methodology ACM0018, where the default CH₄ emission factor of 30 kg/TJ is used, the uncertainty is estimated to be 300 %, resulting in a conservativeness factor of 1.37. Thus, in this case the value of this parameter is: EF_{CH4,BR}=30*1.37=4.11 *10⁵t_{CH4}/GJ. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.		
D.2.17. COEF_i				
a) Measurement / Determination method (VVS, §§ 233, 236) <i>Describe how the monitoring parameter was measured / determined. Focus primarily on the original data level (ODL) but also describe the applied data aggregation trails (from ODL to data aggregation level zero (DAL0)).</i> <i>Check if relevant equipment has been exchanged and if in cases of failures / downtimes of standard equipment other measurement / determination methods have been used. Furthermore, verify the</i>	/IM01/ /PDD/ /ACM001 8/ /XLS/ /ipcc/	<i>Description:</i> COEF_i is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. In this monitoring period, the fossil fuel is diesel, hence the default value for diesel is used. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>frequency of measurements as per the requirements. Assess whether the measurement / determination method is in line with the registered monitoring plan of the PDD and the applied methodology.</i>		The determination method is checked as in line with the registered monitoring plan of the PDD and the applied methodology.		
b) Accuracy and QA/QC Procedure (VVS, §§ 237-243) <i>In case of measured (or estimated) values, check whether the accuracy of equipment used for monitoring is controlled and calibrated in accordance with the monitoring plan or if significant inaccuracies occur; in this case, make sure that the most conservative assumptions theoretically possible have been made for calculating ERs. Describe whether all applicable QA/QC procedures are met. Assess further if the calibration of the monitoring equipment has been carried out in line with the latest EB guidance.</i>	/IM01/ /PDD/ /ACM001 8/ /XLS/ /ipcc/	<i>Description:</i> COEF_i is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. The IPCC publications are monitored annually to check if the value is still equal to the default value in the PDD. In this monitoring period, the value is still derived from IPCC 2006 Default Value. IPCC 2006 is the latest version. <i>Verifier's action:</i> It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> Not applicable as this is a default value.	OK	OK
c) Correctness (VVS, §§ 233, 236) <i>Determine whether the value given in the monitoring report is correct or determined in a conservative manner. In case of conservative approaches used in lieu of the monitoring as per registered MP detailed assessment</i>	/MR/ /QA/ /LOG/ /XLS/ /ipcc/ /PDD/ /ACM001	☒ Correct ☐ Not correct (initial assessment) <i>Description:</i> COEF_i is a default value, which is derived from IPCC 2006 Default Value in accordance with the methodology ACM0018. In this monitoring period, the fossil fuel is diesel, hence the default value for diesel is used. <i>Verifier's action:</i>	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>of the conservativeness of the approach used should be given.</i> <i>In case of mistakes / deviations pl. provide details and descriptions of the CARs raised.</i>	8/	It was verified by checking with registered PDD, IPCC publications and applied methodology against the ER calculation spreadsheet. <i>Conclusion:</i> The values given in the monitoring report are correct and sufficiently justified.		
D.3. Sampling				
a) Implementation of sampling plan (EB70 Annex 11; D3) <i>Check whether the PP has applied a sampling approach to determine the monitored values (as per section D.2 above).</i> <i>If this is the case, please provide an assessment whether the PPs have correctly and sufficiently described the implemented sampling plan including</i> <i>a) Description of the implemented sampling design</i> <i>b) Collected data</i> <i>c) Analysis of collected data</i> <i>d) Demonstration on whether the required confidence/precision has been met.</i>		☒ No sampling approach has been used by the PP to determine the monitored parameters OR. ☐ A sampling approach has been taken for the following monitored parameter: Parameter: <i>Description:</i> <i>Verifier's action:</i> <i>Conclusion:</i>	N/A	N/A
b) Sampling during verification <i>In case the VT has applied a sampling approach in the course of the verification the approach shall be</i>		☐ No sampling approach has been used by the VT to verify the monitored parameters OR.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>described for each parameter.</i>		☒ A sampling approach has been applied by the VT for the following monitored parameter: Parameter: $FR_{f,m}$ Description: There are 21,095 weighting notes and 1,825 populations in daily reports relevant to the final monthly value of the $FR_{f,m}$. Hence, a sampling approach has been applied by the VT. According to the values above and the conservative estimation of 50% wrong values the maximum number of values to be checked for the population of daily reports of $FR_{f,m}$ (1825) would be as following: The details calculation for sample size for this example is: $n \geq \frac{1.645^2 \times 1825 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}{(1825 - 1) \times 0.1^2 + 1.645^2 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}$ = 235.77 Rounding up, the sample size for verification of these populations is 236. During the on-site verification, 915 values of 183 days for $FR_{f,m}$ were checked by the verification team. Hence, more than the required number for the daily reports have been verified. Based on the values from the daily reports, and based on the underlying original data, the verification team calculated the data aggregation completely independent from the calculation provided by the PP. According to the values above and the conservative estimation of 50% wrong values the maximum number of values to be checked for the population of weighing notes of $FR_{f,m}$ (21,095)		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		would be as following: The details calculation for sample size for this example is: $n \geq \frac{1.645^2 \times 21095 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}{(21095 - 1) \times 0.1^2 + 1.645^2 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}$ = 267.19 Rounding up, the sample size for verification of weighing notes is 268. <i>Verifier's action:</i> During the on-site verification, almost 2,000 weighing notes of 30 days were checked by the verification team. Hence, more than the required number of the weighing notes has been verified. Based on the values from the weighing notes, and based on the underlying original data, the verification team calculated the data aggregation completely independent from the calculation provided by the PP. <i>Conclusion:</i> There is no comment found via the sampling approach.		
b) Sampling during verification <i>In case the VT has applied a sampling approach in the course of the verification the approach shall be described for each parameter.</i>		☐ No sampling approach has been used by the VT to verify the monitored parameters OR. ☒ A sampling approach has been applied by the VT for the following monitored parameter: Parameter: $BR_{PJ,y}$ Description: There are 1,825 populations in daily reports relevant to the final monthly value of the $BR_{PJ,y}$. Hence, a	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		sampling approach has been applied by the VT. According to the values above and the conservative estimation of 50% wrong values the maximum number of values to be checked for the population of daily reports of $BR_{PJ,y}$ (1825) would be as following: The details calculation for sample size for this example is: $n \geq \frac{1.645^2 \times 1825 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}{(1825 - 1) \times 0.1^2 + 1.645^2 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}$ = 235.77 Rounding up, the sample size for verification of these populations is 236. <i>Verifier's action:</i> During the on-site verification, 915 values of 183 days for $BR_{PJ,y}$, were checked by the verification team. Hence, more than the required number for the daily reports has been verified. Based on the values from the daily reports, and based on the underlying original data, the verification team calculated the data aggregation completely independent from the calculation provided by the PP. <i>Conclusion:</i> There is no comment found via the sampling approach.		
b) Sampling during verification <i>In case the VT has applied a sampling approach in the course of the verification the approach shall be described for each parameter.</i>		☐ No sampling approach has been used by the VT to verify the monitored parameters OR. ☒ A sampling approach has been applied by the VT for the	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		following monitored parameter: Parameter: Moisture content of each category of biomass residues combusted Description: There are 1,825 populations in daily reports relevant to the final monthly value of the moisture content of each category of biomass residues combusted. Hence, a sampling approach has been applied by the VT. According to the values above and the conservative estimation of 50% wrong values the maximum number of values to be checked for the population of daily reports of moisture content of each category of biomass residues combusted (1825) would be as following: The details calculation for sample size for this example is: $n \geq \frac{1.645^2 \times 1825 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}{(1825 - 1) \times 0.1^2 + 1.645^2 \times \frac{0.5 \times (1 - 0.5)}{0.5^2}}$ = 235.77 Rounding up, the sample size for verification of these populations is 236. Verifier's action: During the on-site verification, 915 values of 183 days for moisture content of each category of biomass residues combusted were checked by the verification team. Hence, more than the required number for the daily reports has been verified. Based on the values from the daily reports, and based on the underlying original data, the verification team calculated the data aggregation completely independent from the calculation		

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		provided by the PP. <i>Conclusion:</i> There is no comment found via the sampling approach.		
E. Calculation of Emission reductions				
E.1. Traceability (VVS, §§ 212, 214) <i>Assess if the calculation is fully traceable. In case of complex calculations an Excel calculation spreadsheet shall be used. All applied formulae must be visible.</i>	/XLS/	<i>Description:</i> An unprotected ER calculation spreadsheet has been provided. All applied formulas are visible. <i>Verifier's action:</i> The ER calculation spreadsheet has been checked. <i>Conclusion:</i> The calculation is completely traceable.	OK	OK
E.2. Parameter consistency (VVS, § 214) <i>Assess whether all internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet?</i> <i>Consider only the correct data exchange between the monitoring report and the calculation spreadsheet (if any). Further ensure the consistency of notations for all parameters in the PDD, MR and calculation spreadsheet.</i>	/XLS/ /PDD/ /MR/ /CAL/ /EBS/ /MRD/	<i>Description:</i> All internal and external parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet. <i>Verifier's action:</i> The values in the ER calculation spreadsheet were checked against power invoices, meter readings and calibration records, the registered PDD and the MR. <i>Conclusion:</i> All parameters and data used for calculation are applied consistently in the monitoring report and the calculation spreadsheet.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
E.3. Correctness of calculation (VVS, §§ 244-245) <i>Check if the applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and / or the approved methodology.</i> <i>Assess whether the provided calculations are complete and reflect all requirements of the monitoring plan.</i> <i>Check especially that no standard or old values have been used for calculation where calculations based on up-to-date data is required.</i>	/XLS/ /PDD/ /ACM001 8/	<i>Description:</i> According to applied methodology ACM0018. Ver.02.0.0, the Emission Reduction is calculated as followings: $ER_y (tCO_{2e}/y) = BE_y - PE_y - LE_y$ Where: BE_y is the baseline emission during year y. PE_y is the project emission during year y. LE_y is the leakage of the project during year y. Baseline emission: $BE_y = BE_{EL,y} + BE_{BR,y}$ Where: $BE_{EL,y}$ is Baseline emissions due to generation of electricity in year y $BE_{BR,y}$ is Baseline emissions due to uncontrolled burning or decay of biomass residues in year y Project emission: $PE_y = PE_{FF,y} + PE_{EL,y} + PE_{TR,y} + PE_{BR,y} + PE_{WW,CH4,y}$ Where: $PE_{FF,y}$ = Emissions during the year y due to fossil fuel consumption, $PE_{EL,y}$ = Emission during the year y due to electricity consumed off-site for the processing of biomass residues, $PE_{TR,y}$ = Emissions during the year y due to transport of the biomass residues to the project plant, $PE_{BR,y}$ = Emissions from the combustion of biomass residues during the year y $PE_{WW,CH4,y}$ = CH4 emissions from wastewater generated from the treatment of biomass residues in year y Leakage: LE_y	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
		The baseline scenario of the project is B1&B3 during this monitoring period with the abundant surplus of each kind of biomass in the region larger than 25%. According to methodology ACM0018, the leakage effects do not need to be addressed. Hence, $LE_y = 0$ $ER_y (tCO_{2e}/y) = BE_y - PE_y - 0 = BE_y - PE_y$ The applied formulae and methods for calculating baseline emissions, project emissions and leakage are in accordance with the monitoring plan and the approved methodology ACM0018. <i>Verifier's action:</i> The ER calculation spreadsheet and MR were checked with the MP and applied methodology. <i>Conclusion:</i> The provided calculations are complete and reflect all requirements of the monitoring plan.		
E.4. Emission reductions table (EB 75, Annex 7, E.4) <i>Check if the MR includes a summary table of the emission reductions calculation specifying separately</i> - Total baseline emissions - Total project emissions: - Total leakage	/MR/	☒ The MR includes in section E.4 a summary table of the emission reductions calculation. ☒ The summary table specified the total baseline, project and leakage emissions as well as the total emission reductions separately. ☒ The values as specified in the ER summary table are correct; no issues have been identified during the verification which require changes in the ER calculation.	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
- <i>Total emission reductions.</i> <i>Assess whether the values are correct or need to be revised as a consequence of issues identified above.</i>		☐ During the verification issues with impact on the ER calculation have been identified. Thus subject to the closure of above listed findings the summary table in E.4 needs to be revised. In this context the following additional findings have been identified: N/A		
E.5. Comparison with ex-ante determined emission reductions (EB 75, Annex 7, E.5; E.6) <i>Check if the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD.</i> <i>Check further whether in case of an increase an appropriate explanation is included in the MR.</i> <i>Assess in case of a significant increase whether this is due to technical or organisational changes within or outside the control of the PP and – if this is case – whether the PRC have been considered appropriately.</i>	/XLS/ /MR/ /PDD/	<i>Description:</i> The MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD. The actual ER of 161,419 tCO₂e is lower than the value estimated in the PDD of 162,647 tCO₂e per year. <i>Verifier's action:</i> By means of MR, ER sheet, Electricity balance sheet and registered PDD check. <i>Conclusion:</i> The comparison shows that the actual emission reduction is lower than expectation in the registered PDD.	OK	OK
E.6. ER during the 1st commitment period and the period from 1 January 2013 onwards (EB 75, Annex 7, E.7) <i>Check if the MR includes in chapter E.7 a breakdown</i>		☒ The MR in section E.7 includes a summary table of the ER breakdown a) <i>ER up to 2012-12-31 and</i> b) <i>ER from 2013-01-01 onwards</i> ☒ The breakdown of the ERs during the first commitment	OK	OK

Checklist Item (incl. guidance for the verification team)	Reference	Verification Team Comments (Means and results of assessment)	Draft Concl.	Final Concl.
<i>of the actual ER into</i> a) <i>ER up to 2012-12-31 and</i> b) <i>ER from 2013-01-01 onwards</i> <i>The ERs for each period should be determined as per the actual generation. In cases where this is not possible or a cap has been applied a proportional (time related) approach should be chosen.</i>		period and from 2013-01-01 onwards is as follows: ☐ The ER have completely been generated during the first commitment period ☐ The ERs have completely been generated from 2013-01-01 onwards, ☒ The ERs have partly been generated during the first commitment period and partly from 2013-01-01 onwards. ☒ The breakdown of the ERs is correct, considering the applicable guidance. In this context the following additional findings have been identified: N/A		

ANNEX 2: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL

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Ms. Xue Jiao Fancy Zhao <table border="1"><thead><tr><th>SCHEME</th><th>STATUS</th><th>VALID UNTIL</th></tr></thead><tbody><tr><td>CDM</td><td>Lead Assessor (Validation, Verification)</td><td>2015-06-07</td></tr><tr><td>VCS / ISO 14064-2</td><td>Lead Assessor</td><td>2015-06-07</td></tr></tbody></table> Authorization status for technical areas within sectoral scopes: <table border="1"><thead><tr><th>CODE</th><th>TECHNICAL AREA</th></tr></thead><tbody><tr><td>1.2</td><td>Renewable Energies</td></tr></tbody></table> 230 – Rev. 2, Date: 2012-06-08	SCHEME	STATUS	VALID UNTIL	CDM	Lead Assessor (Validation, Verification)	2015-06-07	VCS / ISO 14064-2	Lead Assessor	2015-06-07	CODE	TECHNICAL AREA	1.2	Renewable Energies	Mr. Wei Wang <table border="1"><thead><tr><th>SCHEME</th><th>STATUS</th><th>VALID UNTIL</th></tr></thead><tbody><tr><td>CDM</td><td>Assessor (Validation, Verification)</td><td>2016-02-08</td></tr><tr><td>VCS / ISO 14064-2</td><td>Assessor</td><td>2016-02-08</td></tr></tbody></table> Authorization status for technical areas within sectoral scopes: <table border="1"><thead><tr><th>CODE</th><th>TECHNICAL AREA</th></tr></thead><tbody><tr><td>1.1</td><td>Thermal Energy Generation</td></tr></tbody></table> 311 – Rev. 2, Date: 2013-02-07	SCHEME	STATUS	VALID UNTIL	CDM	Assessor (Validation, Verification)	2016-02-08	VCS / ISO 14064-2	Assessor	2016-02-08	CODE	TECHNICAL AREA	1.1	Thermal Energy Generation	Mr. Stefan Winter <table border="1"><thead><tr><th>SCHEME</th><th>STATUS</th><th>VALID UNTIL</th></tr></thead><tbody><tr><td>CDM</td><td>Senior Assessor (Validation, Verification) Technical Reviewer</td><td>2014-06-30</td></tr><tr><td>VCS</td><td>Senior Assessor (Validation, Verification) Technical Reviewer</td><td>2014-06-30</td></tr></tbody></table> Authorization status for technical areas within sectoral scopes: <table border="1"><thead><tr><th>CODE</th><th>TECHNICAL AREA</th><th>TR SUBCATEGORIES</th></tr></thead><tbody><tr><td>1.1</td><td>Thermal energy generation</td><td>1.1.1 Hydro 1.1.2 Wind 1.1.3 Geothermal 1.1.4 Solar 1.1.5 Tidal</td></tr><tr><td>2.2</td><td>Heat distribution</td><td></td></tr><tr><td>3.1</td><td>Energy demand</td><td></td></tr><tr><td>13.1</td><td>Waste handling and disposal</td><td>13.1.1 Waste management 13.1.2 Waste water management</td></tr><tr><td>13.2</td><td>Animal waste management</td><td></td></tr><tr><td>13.3</td><td>Animal waste management</td><td></td></tr></tbody></table> 163 – Rev. 2, Date: 2011-08-10	SCHEME	STATUS	VALID UNTIL	CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2014-06-30	VCS	Senior Assessor (Validation, Verification) Technical Reviewer	2014-06-30	CODE	TECHNICAL AREA	TR SUBCATEGORIES	1.1	Thermal energy generation	1.1.1 Hydro 1.1.2 Wind 1.1.3 Geothermal 1.1.4 Solar 1.1.5 Tidal	2.2	Heat distribution		3.1	Energy demand		13.1	Waste handling and disposal	13.1.1 Waste management 13.1.2 Waste water management	13.2	Animal waste management		13.3	Animal waste management		Ms. Alexandra Nebel <table border="1"><thead><tr><th>SCHEME</th><th>STATUS</th><th>VALID UNTIL</th></tr></thead><tbody><tr><td>CDM</td><td>Senior Assessor (Validation, Verification) Technical Reviewer</td><td>2016-03-03</td></tr><tr><td>J1</td><td>Senior Assessor Technical Reviewer</td><td>2016-03-03</td></tr><tr><td>VCS / ISO 14064-2</td><td>Senior Assessor Technical Reviewer</td><td>2016-03-03</td></tr></tbody></table> Authorization status for technical areas within sectoral scopes: <table border="1"><thead><tr><th>CODE</th><th>TECHNICAL AREA</th></tr></thead><tbody><tr><td>14.1</td><td>Forestry</td></tr></tbody></table> 095 – Rev. 4, Date: 2013-03-04	SCHEME	STATUS	VALID UNTIL	CDM	Senior Assessor (Validation, Verification) Technical Reviewer	2016-03-03	J1	Senior Assessor Technical Reviewer	2016-03-03	VCS / ISO 14064-2	Senior Assessor Technical Reviewer	2016-03-03	CODE	TECHNICAL AREA	14.1	Forestry
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