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Validation Report

Climate Change Capital Limited

VALIDATION OF THE CDM-PROJECT:
BIOMASS GENERATION PROJECT, IN SHEYANG
COUNTY, JIANGSU PROVINCE, P.R. CHINA

REPORT NO. 969537

2008, March 20

TÜV SÜD Industrie Service GmbH
Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

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Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich FEDERAL REPUBLIC OF GERMANY	TÜV SÜD Contract Partner: Jiangsu TÜV Product Service Shanghai Branch 16 F West Building, New Hualian Mansion No. 775 Huaihai Road, Shanghai P.R. China
Client: Climate Change Capital Limited 49 Grosvenor Street W1K 3HP London	Project Site(s): West Economic Development Zone of Sheyang County, Yancheng city, Jiangsu province People's Republic of China
Project Title: Biomass generation project, in Sheyang county, Jiangsu province, P.R. China	
Applied Methodology / Version: ACM0006 version 04	Scope(s): 1
First PDD Version: Date of issuance: 2006-11-28 Version No.: 1 Starting Date of GSP 2006-12-20	Final PDD version: Date of issuance: 2007-07-20 Version No.: 3.3
Estimated Annual Emission Reduction: 109,105 tons CO _{2e}	
Assessment Team Leader: Dr. Sven Kolmetz	Further Assessment Team Members: Cuiyun Zhang
Summary of the Validation Opinion: ☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively. ☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.	

Abbreviations

ACM	Approved Consolidated Methodology
AM	Approved Methodology
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CR	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EB	Executive Board
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission reduction
GHG	Greenhouse gas(es)
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non Governmental Organisation
PDD	Project Design Document
PP	Project Participant
TÜV SÜD	TÜV SÜD Industrie Service GmbH
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

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1 INTRODUCTION

1.1 Objective

The validation objective is an independent assessment by a Third Party (Designated Operational Entity = DOE) of a proposed project activity against all defined criteria set for the registration under the Clean Development Mechanism (CDM). Validation is part of the CDM project cycle and will finally result in a conclusion by the executing DOE whether a project activity is valid and should be submitted for registration to the CDM-EB. The ultimate decision on the registration of a proposed project activity rests at the CDM Executive Board and the Parties involved.

The project activity discussed by this validation report has been submitted under the project title:
Biomass generation project, in Sheyang county, Jiangsu province, P.R. China

1.2 Scope

The scope of any assessment is defined by the underlying legislation, regulation and guidance given by relevant entities or authorities. In the case of CDM project activities the scope is set by:

- The Kyoto Protocol, in particular § 12
- Decision 2/CMP1 and Decision 3/CMP.1 (Marrakech Accords)
- Further COP/MOP decisions with reference to the CDM (e.g. decisions 4 – 8/CMP.1)
- Decisions by the EB published under <http://cdm.unfccc.int>
- Specific guidance by the EB published under <http://cdm.unfccc.int>
- Guidelines for Completing the Project Design Document (CDM-PDD), and the Proposed New Baseline and Monitoring Methodology (CDM-NM)
- The applied approved methodology
- The technical environment of the project (technical scope)
- Internal and national standards on monitoring and QA/QC
- Technical guideline and information on best practice

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

Once TÜV SÜD receives a first PDD version, it is made publicly available on the internet at TÜV SÜD's webpage as well as on the UNFCCC CDM-webpages for starting a 30 day global stakeholder consultation process (GSP). In case of any request a PDD might be revised (under certain conditions the GSP will be repeated) and the final PDD will form the basis for the final evaluation as presented by this report. Information on the first and on the final PDD version is presented at page 1.

The only purpose of a validation is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual, an initiative of Designated and Applicant Entities, which aims to harmonize the approach and quality of all such assessments.

In order to ensure transparency, a validation protocol was customised for the project. TÜV SÜD developed a “cook-book” for methodology-specific checklists and protocol based on the templates presented by the Validation and Verification Manual. The protocol shows, in a transparent manner, criteria (requirements), the discussion of each criterion by the assessment team and the results from validating the identified criteria. The validation protocol serves the following purposes:

- It organises, details and clarifies the requirements a CDM project is expected to meet;
- It ensures a transparent validation process where the validator will document how a particular requirement has been validated and the result of the validation.

The validation protocol consists of three tables. The different columns in these tables are described in the figure below.

The completed validation protocol is enclosed in Annex 1 to this report.

Validation Protocol Table 1: Conformity of Project Activity and PDD				
Checklist Topic / Question	Reference	Comments	PDD in GSP	Final PDD
The checklist is organised in sections following the arrangement of the applied PDD version. Each section is then further subdivided. The lowest level constitutes a checklist question / criterion.	Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents other than the PDD.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached. In some cases sub-checklist are applied indicating yes/no decisions on the compliance with the stated criterion. Any Request has to be substantiated within this column	Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (✓), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CR) is used when the validation team has identified a need for further clarification.	Conclusions are presented in the same manner based on the assessment of the final PDD version.

Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests			
Clarifications and corrective action requests	Ref. to table 1	Summary of project owner response	Validation team conclusion
<i>If the conclusions from table 1 are either a Corrective Action Request or a Clarification Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the Corrective Action Request or Clarification Request is explained.</i>	<i>The responses given by the client or other project participants during the communications with the validation team should be summarised in this section.</i>	<i>This section should summarise the validation team's responses and final conclusions. The conclusions should also be included in Table 1, under "Final PDD".</i>

In case of a denial of the project activity more detailed information on this decision will be presented in table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	Id. of CAR/CR 1	Explanation of the Conclusion for Denial
<i>If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.</i>	<i>Identifier of the Request.</i>	<i>This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion.</i>

2.1 Appointment of the Assessment Team

According to the technical scopes and experiences in the sectoral or national business environment TÜV SÜD has composed a project team in accordance with the appointment rules of the TÜV SÜD certification body “climate and energy”. The composition of an assessment team has to be approved by the Certification Body ensuring that the required skills are covered by the team. The Certification Body TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)
- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

It is required that the sectoral scope linked to the methodology has to be covered by the assessment team.

The validation team was consisting of the following experts (the responsible Assessment Team Leader in written in bold letters):

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Dr. Sven Kolmetz	ATL	☒	☒	
Cuiyun Zhang	A			☒

Dr. Sven Kolmetz is physicist and auditor at the department “TÜV Carbon Management Service” located in the head office of TÜV Süd Industrie Service GmbH in Munich. Furthermore he is officially authorized expert in the verification of GHG emissions in the framework of the European Emission Trading Scheme. Before entering TÜV SÜD he worked as energy consultant for industrial companies and as consultant for the German Federal Government on instruments for the reduction of GHG emissions.

Cuiyun Zhang is an auditor for environmental management systems (according to ISO 14001) at Jiangsu TUV Product Service Ltd. She is based in Shanghai. In her position she is responsible for the implementation of validation, verification and certifications audits for management systems. She has received training in the CDM validation process and participated already in several CDM project assessments.

2.2 Review of Documents

The first PDD version submitted by the client and additional background documents related to the project design and baseline were reviewed as initial step of the validation process. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

2.3 Follow-up Interviews

In the period of March 22th, 2007 TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of this on-site visit.

Name	Organisation
Mr. Xiao Bin	National Bio Energy Co., Ltd.
Mr. Zhou Sheng	Global Climate Change Institute, Tsinghua University
Mr. Lu Chuanyi	Global Climate Change Institute, Tsinghua University
Mr. Luo Jun	National Bio Energy Sheyang Co., Ltd.
Ms. Geng Haixia	National Bio Energy Sheyang Co., Ltd.
Mr. Ding Hai	National Bio Energy Sheyang Co., Ltd.
Mr. Lu Shuliang	National Bio Energy Sheyang Co., Ltd.
Mr. Huang Dong	National Bio Energy Sheyang Co., Ltd.
Mr. Chen Jiu	National Bio Energy Sheyang Co., Ltd.
Mr. Lu Xinghua	National Bio Energy Sheyang Co., Ltd.
Mr. Hu Fan	Eternal International Holoding Group Ltd

2.4 Resolution of Clarification and Corrective Action Requests

The objective of this phase of the validation is to resolve the requests for corrective actions and clarifications and any other outstanding issues which needed to be clarified for TÜV SÜD's positive conclusion on the project design. The Corrective Action Requests and Clarification Requests raised by TÜV SÜD were resolved during communication between the client and TÜV SÜD. To guarantee the transparency of the validation process, the concerns raised and responses that have been given are summarised in chapter 3 below and documented in more detail in the validation protocol in annex 1.

2.5 Internal Quality Control

As final step of a validation the validation report and the protocol have to undergo an internal quality control procedure by the Certification Body "climate and energy", i.e. each report has to be approved either by the head of the certification body or his deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one.

It rests at the decision of TÜV SÜD's Certification Body whether a project will be submitted for re-requesting registration by the EB or not.

3 SUMMARY OF FINDINGS

The following description of the project as per PDD could be verified during the on-site audit:

The proposed project is a newly-built generation project with cotton straw as fuel, which is located in Sheyang County, Jiangsu province. The install capacity of this project is 25 MW with 130 t/h boiler. The annual cotton straws consumption is about 123,100 t, and it is expected to deliver annually 126.5 GWh electricity to East China Power Grid (ECPG) of China.

When the proposed project is put into operation, the GHG emission reductions are from two components. Firstly, it will substitute some electricity generation of ECPG dominated by fossil fuel power plants. Secondly, it will use cotton straw in high efficiency, which will reduce CH₄ emissions because the biomass is dumped or left to decay or burned in an uncontrolled manner in the absence of the proposed project. The estimated annual GHG emission reductions are 109,105 tCO_{2e}.

As informed above all findings are summarized in table 2 of the attached validation protocol.

In total the assessment team expressed 6 Clarification Requests and 22 Corrective Action Requests:

The required documents (English version of the IRR calculation excel sheet, benchmark) have been submitted to the DOE and the more formal aspects of the proposed project (crediting period etc.) have been added to the PDD finally. Hence, most of the CAR and CR were resolved very easily.

For the BM calculation the PDD adopts modified methods agreed by the EB for the approved methodologies AM0005 and AMS I.D. because plant specific data are not available in China. The emission factor of the thermal power plants is calculated by the proportion of the emissions of coal, gas and oil times the emission factor of the best available coal, gas and oil power plant as defined and published by the Chinese DNA. The new thermal capacity installation that exceeds 20% in the last years, for which data are available, is finally assessed with this factor.

The additionality has been evidenced by investment analysis. The benchmark used (IRR) and the IRR calculation will be uploaded together with the PDD. The early consideration of CDM has been evidenced by a official meeting minute of the board and is available in Chinese.

Hence, the project complies with the requirements.

The Executive Board has raised a Request for review, following the submission of the project for registration. TÜV SÜD and the PP have submitted a joint response on February 26.

In EB38 it was agreed to register the project activity with corrections as follows (compare to EB37 report, page 9, paragraph 43 o (a) "Biomass generation project, in Sheyang county, Jiangsu province, P.R. China" (1366) if

the DOE (TÜV-SÜD) submits a revised validation report which validates the input values used in the investment analysis and explains why the results of the sensitivity analysis relating to the electricity output reported in the PDD are not supported by the associated spreadsheet;

Taken above into consideration TÜV SÜD would like to point out that:

The key figures besides the electricity tariff and straw price, such as total investment, annual electricity output and the annual consumption of the straw, used for the IRR calculation are quoted from the approved feasibility study report. Compared with statistics from other biomass projects in China applying for CDM the values have been considered to be reasonable as the investment as well as

the operational hours for the project activity are in the range of average values. The straw consumption can be considered to be reasonable as well as the efficiency is about 25% based on the generation and biomass consumption.

Regarding the electricity tariff, the audit team agrees on that the tariff in the report is not valid any longer when the project was implemented with the CDM supports in 2006. Because according to the Chinese Renewable Law which is in effective as from January 1st of 2006, the price of electricity supplied by a biomass power plant shall be 0.25 RMB higher than the one fed from the coal-fired power plant (so called yardstick tariff) in the first 15 operation years, from 16th year onwards, the tariff shall be same to the yardstick tariff. According to the Notice issued by the Price Bureau of Jiangsu Province, the electricity price of coal-fired power plant was 0.386 RMB/kWh in 2005. Hence, the price used in the IRR spreadsheet is assumed to be 0.544 RMB/kWh (in the first 15 operation years excluding 17% VAT) and 0.330 RMB/kWh (the residual years excluding 17% VAT). The Chinese Renewable Energy Law and the Notice issued by Price Bureau of Jiangsu Province have been checked and verified.

Referring to the feasibility study report, the straw price is set to be 543 RMB/t. During the on site audit in March of 2007, the purchasing contracts which had been countersigned with the collection station present that the actual price at that time was 240 RMB/t. Moreover, a survey of straw price was carried out by the project owner at the beginning of 2006. Through the analysis report dated in March of 2006, it could be clearly seen that 240 RMB/t is a reasonable price. For the purpose of conservativeness, the lower one (240 RMB/t) was used in the IRR calculation. Similarly, according to the study report, the material cost is 10 RMB/MWh, however, in the IRR spreadsheet, only 5 RMB/MWh is considered.

As to the sensitivity analysis, the selected parameters and fluctuation range of each parameter are same to the feasibility study report which has been approved by the Chinese government. The detailed calculation process and results have been verified by the audit team. It is reasonable and common sense that the investment costs and operational costs will not fluctuate in a larger interval. The costs have been compared with statistics from 30 other Chinese CDM projects under validation and already registered. The data of this project is not unreasonably different. The electricity tariff is fixed by the authorities and the probability of fluctuating seems to be low. Regarding the straw price the conservative value evidenced by the survey report (half of the value indicated in the FSR) has been used.

Regarding the results of the sensitivity analysis relating to the electricity output the Excel spread sheet has been checked again. If the electricity output to the grid is increased by 10% the amount of straw has to be increased in the same range because otherwise the electricity output cannot be increased. The resulting IRR is 7,28% even lower than the IRR mentioned in the PDD.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on UNFCCC website by installing a link to TÜV SÜD's own website and invited comments by Parties, stakeholders and non-governmental organisations during a period of 30 days.

The following table presents all key information on this process:

webpage: http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=2403&Ebene1_ID=26&Ebene2_ID=714&mode=1	
Starting date of the global stakeholder consultation process: 2006-12-20	
Comment submitted by: none	Issues raised: -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

TÜV SÜD has performed a validation of the following proposed CDM project activity:

Biomass generation project, in Sheyang county, Jiangsu province, P.R. China.

The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board.

We herewith confirm that above opinion remains unaltered after consideration of the Executive Boards request for review, which was dealt with by EB 38. We like to point out this is also the case for the issue raised in EB's response to the submitted answer for the request for review. A validation opinion on the input values used in the investment analysis is provided in chapter 3 above.

An analysis as provided by the applied methodology demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. Given that the project is implemented as designed, the project is likely to achieve the estimated amount of emission reductions as specified within the final PDD version.

The validation is based on the information made available to us and the engagement conditions detailed in this report. The validation has been performed using a risk based approach as described above. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD can not be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

Munich, 2008-03-20



Certification Body "climate and energy"
TÜV SÜD Industrie Service GmbH

Munich, 2008-03-20



Assessment Team Leader

Validation of the CDM Project:
Biomass generation project, in Sheyang county, Jiangsu province,
P.R. China



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Annex 1: Validation Protocol

Validation Protocol

Project Title: Biomass generation project, in Sheyang County, Jiangsu Province, P.R. China

Date of Completion: March 20th, 2008

Number of Pages: 70



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Table 1 Conformity of Project Activity and PDD

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of project activity				
A.1. Title of the project activity				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	1	The project activity is a grid-connected electricity generation project through firing biomass. Considering the LoA of the project has been issued under this title by the host country and the possibility of recurrence using the same title in the same area by a similar project is extremely low. The audit team believes the project could be identified by the current title.	☒	☒
A.1.2. Are there any indication concerning the revision number and the date of the revision?	1	The version used for the on site audit and the document review is 1.0 which has been accomplished on Nov. 28 th , 2006.	☒	☒
A.1.3. Is this consistent with the time line of the project's history?	1	This is the first and only one at the validator's desk while preparing the protocol. Moreover, the PDD with the same version is used for GSP since Dec. 20 th , 2006	☒	☒
A.2. Description of the project activity				
A.2.1. Is the description delivering a transparent overview of the project activities?	1	The project activity comprises the installation of a new power plant at Sheyang County, Yan City, Jiangsu Province, where currently no power generation occurs and the biomass is dumped or left to decay or burned in an uncontrolled manner in the absence of the proposed project. Through the installation of the Denmark designed boiler, a 25 MW turbine-generator unit, the cotton straws will be utilized for the electricity generation. The power produced will be fed into the East China Power Grid; the heat generated will not be considered by the calculation of emission reductions. At the time of site visiting, the related main equipments have been installed and are expected to be in operation in May 2007. Moreover, 3 big collection stations of biomass run by the project owner	☒	☒

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Project Title: Biomass generation project, in Sheyang County, Jiangsu Province, P.R. China

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		and about 70 small ones owned by local dealer have been established. It is estimated that nearly 70,000t cotton straws are stored in these collection stations.		
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1, 7, 8, 9, 12, 13, 14, 15, 16, 17	The project activity is the displacement of electricity generated by coal fired power plants with electricity generated by biomass residues. The following documents deliver evidences for the project activity: - Purchasing contract of boiler, turbines and the generator; - Feasibility Study Report (approved by Jiangsu Development and Reform Commission in June, 2006) - Environmental Impact Assessment (approved by the EPB of Jiangsu Province on May 28th, 2006) - The agreements with the biomass collection station owners (one big and one small collection station was visited during the on site audit)	☒	☒
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1	The PDD is prepared based on the approved documents, hence, the content is consistent with the information that the auditor acquired through the document reviewing and site visiting.	☒	☒
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1	Yes, the depiction of the proposed project activity, including installation capacity, biomass category, the project site, equipment parameters, etc., is consistent throughout the entire PDD.	☒	☒
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?	1	Yes, the required form is correctly applied.	☒	☒
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	1	Both Climate Change Capital Carbon Fund II s.à r.l. and Climate Change Capital Carbon Managed Account are the investment parties. From the host country, National Bio Energy Co., Ltd. is	Open Issue	☒

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
			the project owner. All parties have been confirmed by the project owner on site. <u>Open Issue:</u> Pls. deliver the LoA issued by the P.R. China and United Kingdom together with MoC countersigned by 3 parties to the DOE before raising the request of registration.		
A.3.3.	Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1	The information of participants is consistent through the whole PDD.	☒	☒
A.4. Technical description of the project activity					
A.4.1. Location of the project activity					
A.4.1.1.	Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1, 8	The location of the project is not clearly described in the PDD, pls. kindly add the following information into section A.4.1. of the PDD. <u>Corrective Action Request 1:</u> - Only names of the county and the province are given in the PDD. Pls. kindly add the city name (Yancheng City) into A.4.1.3. of the PDD; - Pls. present the exact geographical coordinates of the proposed project activity; - For the purpose of being understood well, please use maps marked with English.	CAR 1	☒
A.4.1.2.	How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1, 8	Besides the review of official documents mentioned above, a visiting to the power plant and biomass collection sites was executed by the auditor in March of 2007. The collection stations have all been in operation since last year. Furthermore, the construction and installation of the power plant have been accomplished. The	☒	☒

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		generation of electricity is expected to be in May, 2007. Hence, the validation team has the confidence on the implementation of the proposed project at the site defined in the PDD.		
A.4.2. Category(ies) of project activity				
A.4.2.1. Which category(ies) does the project activity belong to? Is the category correctly identified and indicated?	1, 2	Yes, the project refers to scope 1. It is clearly indicated in section A.4.2. of the PDD.	☒	☒
A.4.3. Technology to be employed by the project activity				
A.4.3.1. Does the technical design of the project activity reflect current good practices?	1, 11, 12, 13, 14	The proposed project installs a boiler with high temperature and high pressure. The equipment and technology are imported from Denmark, BWE Company which provides design with the advantage of no knotting residue and burning completely. Moreover, it has been successfully operated in some European countries, such as Denmark, UK and Germany etc. The Turbine and the generator are supplied by Wuhan Turbine and Generator Co., Ltd. which is also the lead company in turbine-generator industry in China. <u>Corrective Action Request 2:</u> - The type of the steam turbine is N30-8.83. Pls. kindly correct accordingly. - The cotton straws will be broken into pieces at the collection station, not at the plant site. Pls. correct the related description in A.4.3. of the PDD.	CAR 2	☒
A.4.3.2. Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	1, 11, 12, 13, 14	The PDD provides an overview of the implemented technology which enables the conversion from biomass residue to electricity generation. The produced power will be the substitution of grid supplied electricity mainly from coal fired plants. There's no doubt that the proposed project will reduce GHG emissions significantly.	☒	☒

Validation Protocol

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.3.3. Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	1, 11, 12, 13	The implemented technology is developed by BWE, a Danish company. Therefore, the technology transfer is definitely required.	☒	☒
A.4.3.4. Is the technology implemented by the project activity environmentally safe?	1, 11, 12, 13, 14	According to the approved EIA, the proposed project will not cause a negative impact to the environment.	☒	☒
A.4.3.5. Is the information provided in compliance with actual situation or planning?	1	The purchasing contracts and equipments installed on site all prove the description in the PDD.	☒	☒
A.4.3.6. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 11, 12, 13, 14	With the advantages of high efficiency and no knotting residue, this technology has been successfully operated for years in several European countries. Doubtlessly, state of the art technology is implemented in the proposed project.	☒	☒
A.4.3.7. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 14	We do not expect that there will be a substitution because the boiler, the turbine and the generator will be newly commissioned and installed. The life cycles of the boiler and the turbine are under normal circumstances longer than the project period.	☒	☒
A.4.3.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1, 20	In regard to the advanced technology which is implemented in this project, extensive initial training is needed to guarantee safe operation during the life time.	☒	☒
A.4.3.9. Is information available on the demand and requirements for training and maintenance?	1, 20	The maintenance and operation courses are provided by a training organization authorized by BWE in 2006. The training plan and results are reviewed by the auditor on site.	☒	☒
A.4.3.10. Is a schedule available for the implementation of the project and are there any	1	Since the construction and installation have been completed, on the other hand, the collection sites are all established and in op-	☒	☒

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risks for delays?		eration. The project owner is confident on the electricity generation in May as scheduled. The risk of delays deems extremely low.		
A.4.4. Estimated amount of emission reductions over the chosen crediting period				
A.4.4.1. Is the form required for the indication of projected emission reductions correctly applied?	1	The required form is correctly applied in the PDD. <u>Corrective Action Request 3:</u> Regarding the fact that the operation date would be in May, 2007, not at the first beginning of 2008 which is expected while preparing the PDD, an earlier starting date of crediting period is anticipated. Pls. revise the related statement in a reasonable manner.	CAR 3	☑
A.4.4.2. Are the figures provided consistent with other data presented in the PDD?	1	Yes, they do.	☑	☑
A.4.5. Public funding of the project activity				
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1, 19	There's no public funding from Annex I parties. The project owner's equity capital and the commercial loan from China Construction Bank compose the investment of this project. The released letter from the bank has been reviewed during the audit.	☑	☑
A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1	The statements are in consistency within the PDD and Annex 2.	☑	☑
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology				
B.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1, 2	The methodology ACM0006, version 04 and the methodology ACM0002, version 06 are applied to this project. It is clearly indicated in B.1. of the PDD.	☑	☑

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B.1.2. Is the applied version the most recent one and / or is this version still applicable?	1, 2	The applied versions are the most released ones.	☑	☑										
B.2. Justification of the choice of the methodology and why it is applicable to the project activity														
B.2.1. Is the applied methodology considered the most appropriate one?	1, 2	The project activity fulfills the criteria of ACM0006: - electricity generation through firing biomass residue; - the biomass residue is the predominate fuel used in the plant; the fossil fuel is only used for transportation, mechanical treatment and starting fire; - the produced electricity supplied the grid; - the biomass residue will not be stored for more than one year; Furthermore, it has been verified on site that the baseline scenario of the proposed project activity is scenario 2. Thus, the methodology is deemed to be the most applicable for this project among the existing approved methodologies.	☑	☑										
B.2.2. Is the project activity clear according to the PDD?	1, 2	<table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Greenfield project?</td><td>Yes</td></tr><tr><td>Power capacity expansion project?</td><td>No</td></tr><tr><td>Energy efficiency improvement project?</td><td>No</td></tr><tr><td>Fuel switch project?</td><td>No</td></tr></table> The project activity is a new installation of biomass residues fired power generation plant at a site where currently no power generation occurs, therefore, it's a Greenfield project.	Applicability checklist	Yes / No	Greenfield project?	Yes	Power capacity expansion project?	No	Energy efficiency improvement project?	No	Fuel switch project?	No	☑	☑
Applicability checklist	Yes / No													
Greenfield project?	Yes													
Power capacity expansion project?	No													
Energy efficiency improvement project?	No													
Fuel switch project?	No													
B.2.3. Applicability Criterion 1: No other biomass types than biomass re-	1, 2	<table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	☑	☑						
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													

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sidues are used and these residues are the predominant fuel.			<table><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table> The proposed project activity will only use cotton straws as the biomass fuel.		Compliance provable?	Yes	Evidences provided in the PDD?	Yes	Compliance verified?	Yes						
Compliance provable?	Yes															
Evidences provided in the PDD?	Yes															
Compliance verified?	Yes															
B.2.4.	Criterion 2: For projects that use biomass residues from a production process (e.g. production of sugar or wood panel boards), the implementation of the project shall not result in an increase of the processing capacity of raw input (e.g. sugar, rice, logs, etc.) or in other substantial changes (e.g. product change) in this process	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>N.A.</td></tr><tr><td>Compliance provable?</td><td>N.A.</td></tr><tr><td>Evidences provided in the PDD?</td><td>N.A.</td></tr><tr><td>Compliance verified?</td><td>N.A.</td></tr></table> Cotton straws are not produced in a production process, hence, this criterion is not applicable.		Applicability checklist	Yes / No	Criterion discussed in the PDD?	N.A.	Compliance provable?	N.A.	Evidences provided in the PDD?	N.A.	Compliance verified?	N.A.	☒	☒
Applicability checklist	Yes / No															
Criterion discussed in the PDD?	N.A.															
Compliance provable?	N.A.															
Evidences provided in the PDD?	N.A.															
Compliance verified?	N.A.															
B.2.5.	Criterion 3: The biomass residues used by the project facility should not be stored for more than one year;	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Evidences provided in the PDD?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table> <u>Clarification Request 1:</u> Since the project is a newly installed power plant, all the biomass residues for the project activity were collected at the 4th quarter of last year. In other words, the biomass stored currently has not exceeded the limitation of 1 year. However, the PDD does not provide the information that which approach will be applied to ensure this criterion could be fulfilled in the entire crediting period.		Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Evidences provided in the PDD?	No	Compliance verified?	Yes	CR 1	☒
Applicability checklist	Yes / No															
Criterion discussed in the PDD?	Yes															
Compliance provable?	Yes															
Evidences provided in the PDD?	No															
Compliance verified?	Yes															
B.2.6.	Criterion 4:	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr></table>		Applicability checklist	Yes / No	☒	☒								
Applicability checklist	Yes / No															

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No significant energy quantities, <i>except from transportation or mechanical treatment of the biomass residues</i> , are required to prepare the biomass residues for fuel combustion			Criterion discussed in the PDD?	Yes		
			Compliance provable?	Yes		
			Evidences provided in the PDD?	Yes		
			Compliance verified?	Yes		
B.2.7.	Criterion 6: No processing of the biomass residues prior to combustion, except from transportation or mechanical treatment, are required.	1, 2	Applicability checklist	Yes / No	☒	☒
			Criterion discussed in the PDD?	Yes		
			Compliance provable?	Yes		
			Evidences provided in the PDD?	Yes		
			Compliance verified?	Yes		
B.3. Description of the sources and gases included in the project boundary						
B.3.1.	Source: Grid electricity generation Gas(es): CO2 Type: Baseline Emissions	1, 2	Boundary checklist	Yes / No	☒	☒
			Source and gas(es) discussed in the PDD?	Yes		
			Inclusion / exclusion justified?	Yes		
			Explanation / Justification sufficient?	Yes		
			Consistency with monitoring plan?	Yes		
			The generated electricity will be fed to the East China Power Grid which is mainly supplied by thermal power plants.		☒	☒
B.3.2.	Source: Heat generation Gas(es): CO2 Type: Baseline Emissions	1, 2	Boundary checklist	Yes / No		
			Source and gas(es) discussed in the PDD?	N.A.		
			Inclusion / exclusion justified?	N.A.		
			Explanation / Justification sufficient?	N.A.		
			Consistency with monitoring plan?	N.A.		

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		The heat generation is not considered at this project, so this section is not applicable.												
B.3.3. Source: Uncontrolled burning or decay of surplus biomass residues Gas(es): CH4 Type: Baseline Emissions	1, 2	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table> Scenario 2 is verified to be the most likely baseline scenario, hence according to the methodology, the CH ₄ emission source is considered under the situation of B1 or B3.	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	☒	☒
Boundary checklist	Yes / No													
Source and gas(es) discussed in the PDD?	Yes													
Inclusion / exclusion justified?	Yes													
Explanation / Justification sufficient?	Yes													
Consistency with monitoring plan?	Yes													
B.3.4. Source: On-site fossil fuel or electricity consumption Gas(es): CO2 Type: Project Emissions	1, 2	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>No</td></tr><tr><td>Consistency with monitoring plan?</td><td>No</td></tr></table> <u>Corrective Action Request 4:</u> Referring to the calculation of the project emissions in Chapter B.6.3. of the PDD, the emissions caused by the consumption of the electricity at the plant site are zero. However, during the plant visiting, the electricity supplied from the grid does be used for operation. Pls. correct accordingly.	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	No	Consistency with monitoring plan?	No	CAR 4	☒
Boundary checklist	Yes / No													
Source and gas(es) discussed in the PDD?	Yes													
Inclusion / exclusion justified?	Yes													
Explanation / Justification sufficient?	No													
Consistency with monitoring plan?	No													
B.3.5. Source: Off-site transportation of biomass residues Gas(es): CO2 Type: Project Emissions	1, 2	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	☒	☒
Boundary checklist	Yes / No													
Source and gas(es) discussed in the PDD?	Yes													
Inclusion / exclusion justified?	Yes													
Explanation / Justification sufficient?	Yes													
Consistency with monitoring plan?	Yes													

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B.3.6. Source: Combustion of biomass residues Gas(es): CH4 Type: Project Emissions	1, 2	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	☒	☒
Boundary checklist	Yes / No													
Source and gas(es) discussed in the PDD?	Yes													
Inclusion / exclusion justified?	Yes													
Explanation / Justification sufficient?	Yes													
Consistency with monitoring plan?	Yes													
B.3.7. Is the spatial extension of project boundary clear described?	1, 2	The project boundary includes: - the power plant at the project site; - the means for transportation of biomass to the project site, in this case, the biomass residues will be transported via both land and waterway; - all power plants connected physically to the East China Power Grid; <u>Corrective Action Request 5:</u> - If the biomass residues are dumped for leaving to decay without implementing in the project, the site where the biomass residues would have been left for decay or dumped shall also be included in the project spatial extent. Pls. add it into the revised PDD. - Introduced by the project owner, 8% cotton straws will be shipped to the big collection station. Pls. kindly consider the CO2 emissions due to such activity when calculating the emissions produced by off-site transportation of biomass residues.	CAR 5	☒										
B.3.8. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	1, 2	<u>Clarification Request 2:</u> The boundary of the region where the biomass residues are available for the project activity is not clearly identified. Pls. add the ra-	CR 2	☒										

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		dius of the region into the PDD. Furthermore, there’s no reliable source to prove the amount of the cotton straws yearly dumped or left to decay or burned in an uncontrolled manner which is 0.47 million tons. The figures from the approved feasibility report shall be used.										
B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario												
B.4.1. Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1, 2, 3	Realistic and credible alternatives should be determined: <table><tr><td>Completely discussed and reasoned in the PDD?</td><td>Yes / No</td></tr><tr><td>how power would be generated in the absence of the CDM project activity;</td><td>Yes</td></tr><tr><td>what would happen to the biomass residues in the absence of the project activity; and</td><td>Yes</td></tr><tr><td>in case of cogeneration projects: how the heat would be generated in the absence of the project activity</td><td>N.A.</td></tr></table> The heat generated by the proposed project activity does not be considered.	Completely discussed and reasoned in the PDD?	Yes / No	how power would be generated in the absence of the CDM project activity;	Yes	what would happen to the biomass residues in the absence of the project activity; and	Yes	in case of cogeneration projects: how the heat would be generated in the absence of the project activity	N.A.	☒	☒
Completely discussed and reasoned in the PDD?	Yes / No											
how power would be generated in the absence of the CDM project activity;	Yes											
what would happen to the biomass residues in the absence of the project activity; and	Yes											
in case of cogeneration projects: how the heat would be generated in the absence of the project activity	N.A.											
B.4.2. Is the project activity categorized and is that retraceable?	1, 2, 3	For power generation, the realistic and credible alternatives may include: <table><tr><td colspan="2">Categories</td><td>Yes / No</td></tr><tr><td>P1</td><td>The proposed project activity not undertaken as a CDM project activity</td><td>No</td></tr></table>	Categories		Yes / No	P1	The proposed project activity not undertaken as a CDM project activity	No	☒	☒		
Categories		Yes / No										
P1	The proposed project activity not undertaken as a CDM project activity	No										

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		P2	The proposed project activity (installation of a power plant), fired with the same type of bio-mass residues but with a lower efficiency of electrical generation (e.g. an efficiency that is common practice in the relevant industry sector)	No				
		P3	The generation of power in an existing plant, on-site or nearby the project site, using only fossil fuels	No				
		P4	The generation of power in existing and/or new grid-connected power plants	Yes				
		P5	The continuation of power generation in an existing power plant, fired with the same type of biomass residues as (co-) fired in the project activity, and implementation of the project activity, not undertaken as a CDM project activity, at the end of the lifetime of the existing plant	No				
		P6	The continuation of power generation in an existing power plant, fired with the same type of biomass residues as (co-) fired in the project activity and, at the end of the lifetime of the existing plant, replacement of that plant by a similar new plant	No				
		For heat generation, realistic and credible alternative(s) may include:						
		<table> <tr> <th colspan="2">Categories</th> <th>Yes / No</th> </tr> <tr> <td>H1</td> <td>The proposed project activity not undertaken as a CDM project activity</td> <td>N.A.</td> </tr> </table>					Categories	
Categories		Yes / No						
H1	The proposed project activity not undertaken as a CDM project activity	N.A.						

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		H2	The proposed project activity (installation of a cogeneration power plant), fired with the same type of biomass residues but with a different efficiency of heat generation (e.g. an efficiency that is common practice in the relevant industry sector)	N.A.		
		H3	The generation of heat in an existing cogeneration plant, on-site or nearby the project site, using only fossil fuels	N.A.		
		H4	The generation of heat in boilers using the same type of biomass residues	N.A.		
		H5	The continuation of heat generation in an existing cogeneration plant, fired with the same type of biomass residues as in the project activity, and implementation of the project activity, not undertaken as a CDM project activity, at the end of the lifetime of the existing plant	N.A.		
		H6	The generation of heat in boilers using fossil fuels	N.A.		
		H7	The use of heat from external sources, such as district heat	N.A.		
		H8	Other heat generation technologies (e.g. heat pumps or solar energy)	N.A.		
		For the use of biomass residues , the realistic and credible alternative(s) may include, <i>inter alia</i> :				
Categories			Yes / No			

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		B1	The biomass residues are dumped or left to decay under mainly aerobic conditions. This applies, for example, to dumping and decay of biomass residues on fields.	Yes		
		B2	The biomass residues are dumped or left to decay under clearly anaerobic conditions. This applies, for example, to deep landfills with more than 5 meters. This does not apply to biomass residues that are stock-piled ¹ or left to decay on fields.	No		
		B3	The biomass residues are burnt in an uncontrolled manner without utilizing it for energy purposes.	Yes		
		B4	The biomass residues are used for heat and/or electricity generation at the project site	No		
		B5	The biomass residues are used for power generation, including cogeneration, in other existing or new grid-connected power plants ²	No		
		B6	The biomass residues are used for heat generation in other existing or new boilers at other sites ³	No		
		B7	The biomass residues are used for other energy purposes, such as the generation of bio-fuels	No		
		B8	The biomass residues are used for non-energy purposes, e.g. as fertilizer or as feed-stock in processes (e.g. in the pulp and paper industry)	No		
		During the site visiting and document review, it has been verified that most of the cotton straws are dumped or left to decay under mainly aerobic conditions or burnt in an uncontrolled manner				

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			without implementation of the proposed project.																		
B.4.3.	What kind of scenario combination has been applied according to table 1 of methodology?	1, 2, 3	In consideration of the reality that there's neither fossil fuel power plant nor biomass fired power plant on site or nearby the project site accordingly no other use of cotton straws than being dumped or left to decay or burnt in an uncontrolled manner takes place. So Scenario 2 of table 1 seems to be the only one that makes sense.	☒	☒																
B.4.4.	Does the chosen scenario meet engineered project activity?	1, 2, 3	Yes.	☒	☒																
B.4.5.	Have applicable regulatory or legal requirements been identified?	1, 2, 3	Utilizing the biomass residues for power generation is encouraged by the China government. The Renewable Energy Promotion Law and Renewable Energy, which became effective on Jan. 1 st , 2006, regulate clearly that the electricity in-fed tariff shall be 0.25 RMB/kWh higher than the average price of power supplied by coal-fired power plants in the same region in the first 15 operation years.	☒	☒																
B.4.6.	Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?	1, 2, 3	All the identified options are in line with regulations and legal requirements.	☒	☒																
B.4.7.	In case of the scenarios 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16 and 17, a power plant was already operated in respective. In case of the scenarios 1, 2, 3, 4, 7, 8, 10, 11, 12, 13, 14, 15, 16 and 17 heat may already have been generated at the project site prior to the implementation of the project activity. Hence, the lifetime and age of the baseline components need to be considered.	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Age of each component mentioned?</td><td>N.A.</td></tr><tr><td>Expected lifetime of each component mentioned?</td><td>N.A.</td></tr><tr><td>Does the ending date fall in the scheduled crediting period of the project?</td><td>N.A.</td></tr><tr><td>Evidences clearly referenced?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Age of each component mentioned?	N.A.	Expected lifetime of each component mentioned?	N.A.	Does the ending date fall in the scheduled crediting period of the project?	N.A.	Evidences clearly referenced?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.	☒	☒
Data Checklist	Yes / No																				
Age of each component mentioned?	N.A.																				
Expected lifetime of each component mentioned?	N.A.																				
Does the ending date fall in the scheduled crediting period of the project?	N.A.																				
Evidences clearly referenced?	N.A.																				
Has this value been verified?	N.A.																				
Choice of data correctly justified?	N.A.																				
Measurement method correctly described?	N.A.																				

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		There's no existing electricity or heat generation plant on site or nearby the project site. Hence, this section is inapplicable.		
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):				
B.5.1. In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1, 4	3 analysis methods are provided according to the additionality tool (version 2). Because the proposed project generates economic benefits through the sales of electricity other than CDM revenue, therefore, Option I (simple cost analysis) can't be taken. To determine whether install the proposed project, the benchmark IRR of power industry is the key parameter, hence, it deems that Option III (benchmark analysis) is the only applicable one.	☒	☒
B.5.2. In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	1, 4	As described above, Option III is chosen for the investment analysis. This section is not applicable.	☒	☒
B.5.3. In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 4	As described above, Option III is chosen for the investment analysis. This section is not applicable.	☒	☒
B.5.4. In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 4	The IRR with / without CDM revenue are clearly demonstrated in the table at Sub-step 2c of the PDD. The spreadsheet in Chinese has been reviewed by the audit team. All the relative data for calculation are from the approved feasibility report. However, pls. make the revision for the following issues. <u>Corrective Action Request 6:</u> - Required by the EB meeting on Dec. 2006, the data and calculation process on figuring out the IRR shall be added into the PDD or attached to the PDD as an annex;	CAR 6	☒

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			- The preferential tax policy has not been considered while calculating the cash outflow. Pls. correct. - After the discussion with the project developer on site, the annual net electricity fed to the grid will be a sensitive parameter instead of the electricity tariff, therefore the related calculation and chart need to be revised.		
B.5.5.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	1, 4	Yes. The IRR has been figured out under the alternative, implementation of the proposed project without CDM revenue, and the project activity itself. The different results are presented in table "Financial indicators of the proposed project" in the PDD.	☒	☒
B.5.6.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	1, 4	All data used for financial analysis are from the approved report of the feasibility study and other official documents issued by government.	See CR 1	☒
B.5.7.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	1, 4	Doubtless, while implementing the project activity, the project owner has to encounter both financing and technology barriers. Since utilizing biomass for electricity generation is a new technology and just introduced to China recently. The investment on the technology transfer is much higher than the installation of a thermal plant. Compared with installing a coal-fire power plant, the high risk of operation and the trend of increasing biomass price weaken the loan repayment capability. Also more operation and maintenance problems are foreseen. These difficulties have been assessed by the audit team with evidences provided by bank and manufacture.	☒	☒
B.5.8.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1, 4	Yes. Pls. see B.5.7. of the protocol.	☒	☒

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B.5.9. In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	1, 4	Neither investment nor technology barriers could prevent the execution of the defined baseline scenario.	☒	☒
B.5.10. Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	1, 4	The similar projects in Jiangsu Province are listed in Sub-step 4a. All of them encountered the same barriers and have registered or are applying as per CDM.	☒	☒
B.5.11. If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?	1, 4	Pls. see B.5.10. of the protocol.	☒	☒
B.5.12. Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers (step 5)?	1, 4	The CDM registration will help to overcome the financial risks and technical barriers.	☒	☒
B.6. Emissions reductions				
B.6.1. Explanation of methodological choices				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1, 3	The calculation process of the emission reduction complies with the procedures provided in the methodology. There is a difference between the emission reductions through substitution of electricity generation with fossil fuels, project emissions and emissions due to leakage. In this case, because of the applied baseline scenario 2, baseline emissions due to the natural decay or burning of anthropogenic sources of biomass residues are also considered.	☒	☒
B.6.1.2. Is every selection of options offered by the methodology correctly justified and is this	1, 3	Yes, the justification has been fully discussed and demonstrated in the PDD based on the options provided from the latest metho-	CAR 7 CR 3	☒

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justification in line with the situation verified on-site?		dology. The baseline scenario is the substitution of electricity from the grid which is mainly supplied by thermal plants. So the methodology ACM0002 is applied to calculate the emission factor of the grid. Furthermore, as stated in the PDD, ex-ante approach is adopted. Besides issues mentioned below, most of the data are referring to the latest available Chinese Electric Power Yearbook (2003-2005), the China Energy Statistical Yearbook (2000-2005). <u>Corrective Action Request 7:</u> - According to the methodology, the <i>dry</i> weight of biomass residues shall be used for all the calculations. Hence, pls. consider the moisture content while estimating the emission reduction and demonstrate the calculation process into the revised PDD (from the approved report of feasibility study, the moisture is 10%); - Pls. update all the IPCC default values with the latest version of 2006, besides the default value used for the calculation of the defined grid EF; - The OM, BM figures published by NDRC are adopted in this case. However, the OM and BM of the East China Power Grid, not the North China Power Grid, shall be used for calculation; - Confirmed with the project owner on site, the diesel consumption per km is 0.06 l; the farthest round trip distance between the biomass supply sites and plant site is about 100 km, and the smallest truck load is 1 ton, hence, the PET_y needs to be re-calculated accordingly; - Even the OM and BM released by NDRC are adopted, for the purpose of assessment executed by the DOE, the EB and other global stakeholders, pls. add the complete calculation process into Annex 3 and demonstrate the entire		

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		procedures in Step 1 of B.6. of the PDD. Furthermore, pls. submit the spreadsheet to the audit team for review; - The formula (10) of the $PEFF_y$ emissions could not present the real calculation process, pls. refer to the methodology and update it. <u>Clarification Request 3:</u> For the $PEFF_y$ calculation, pls. demonstrate the diesel quantity of $FF_{\text{project plant}}$ and $FF_{\text{project site}}$ respectively in the revised PDD and prove the related calculation process to the audit team for review.		
B.6.1.3. Which conservativeness factor has been chosen and how is this choice justified?	1, 3	Referring to the CAR 5 and CAR 7, the emission reductions shall be updated with the latest data obtained from the on site audit. Since the smallest truck load and the longest round trip distance between a collection station and the plant site will be used for revision, it will result in higher project emissions and lower emissions reductions.	See CAR 5 CAR 7	☒
B.6.1.4. Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 3	Most of the formulae used for the project emissions are complied with the methodology. However, referred to CAR 7, the formula (10) in the PDD needs to be corrected.	See CAR 7	☒
B.6.1.5. Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 3	Pls. kindly see CAR 7. The formulae used for the grid EF calculation are not complete, pls. add the additional ones of BM calculation into the revised version.	See CAR 7	☒
B.6.1.6. Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 7	Option L2 is used to demonstrate that the usage of the biomass residues does not result in an increased fossil fuel consumption. Although the figure used for L2 discussion in the PDD could not be proved by an official document It's smaller than the one from the feasibility report (within the radius of 50km) and the abundant	CAR 8	☒

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tored?		surplus of the cotton straws is already 143% larger than that consumed at the project site. Considering the additional information obtained from the site visiting, the audit team is confident that the quantity of available cotton straws in Wei County is at least 25% larger than used. Hence, the leakage at the validation stage deems to be zero. <u>Corrective Action Request 8:</u> Whereas, according to the methodology, the leakage shall be monitored during the crediting period in a defined geographical boundary of the region. In case, the leakage effects cannot be ruled out under the situation of L2. The emissions of leakage shall be included in the emission reduction calculation. The related formula and the parameters shall be demonstrated in the revised PDD.		
B.6.1.7. Are the formulae required for the determination of emission reductions correctly presented?	1	Yes, it is correctly presented.	☒	☒
B.6.2. Data and parameters that are available at validation <i>The Emission reduction is estimated by the formula $ER_y = ER_{heat, y} + ER_{electricity, y} + BE_{biomass, y} - PE_y - L_y$</i> <i>$ER_y$ = Emissions reductions of the project activity during the year y (tCO₂/yr)</i> <i>$ER_{electricity, y}$ = Emission reductions due to displacement of electricity during the year y (tCO₂/yr)</i> <i>$ER_{heat, y}$ = Emission reductions due to displacement of heat during the year y (tCO₂/yr)</i> <i>$BE_{biomass, y}$ = Baseline emissions due to natural decay or burning of anthropogenic sources of biomass residues during the year y (tCO_{2e}/yr)</i> <i>PE_y = Project emissions during the year y (tCO₂/yr)</i> <i>L_y = Leakage emissions during the year y (tCO₂/yr)</i> <i>Depending on the project not all variables are relevant. Only relevant variables shall be considered following.</i> <i>Parameters that are not relevant shall be addressed as not relevant.</i>				
B.6.2.1. Is the list of parameters presented in	1, 2,	Most of the parameters which determine the baseline and the	CAR 9	☒

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chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	3	project emissions are indicated in table B.6.2. However, some indicators are missing. <u>Corrective Action Request 9:</u> Pls. add the parameters, NCV_c , $FF_{\text{project plant, l, y}}$, $FF_{\text{project site, l, y}}$, and $EC_{PJ,y}$ into the list.																				
B.6.2.2. Does the quantity of biomass residues refer to the dry weight?	1, 2, 3	Pls. kindly refer to CAR 7.	See CAR 7	☒																		
B.6.2.3. Parameter Title: Global warming potential for CH4 (GWP CH4)	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	☒	☒
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
B.6.2.4. Parameter Title: Net quantity of electricity generated during the three most recent years in the fossil fuel fired captive power plant identified as baseline plant (P3) $EG_{CP,historic,3y}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	☒	☒		
Data Checklist	Yes / No																					
Title in line with methodology?	N.A.																					
Data unit correctly expressed?	N.A.																					
Appropriate description of parameter?	N.A.																					
Source clearly referenced?	N.A.																					
Correct value provided?	N.A.																					
Has this value been verified?	N.A.																					
Choice of data correctly justified?	N.A.																					

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		<table><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> P3 isn't the baseline scenario of the proposed project, so, this section is not applied.		Measurement method correctly described?	N.A.																		
Measurement method correctly described?	N.A.																						
B.6.2.5. Parameter Title: Net quantity of electricity generated during the most recent three years in all power plants at the project site, generated from firing the same type(s) of biomass residues as in the project plant EG _{historic,3y}	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> There's no existing power plant utilizing any kind of biomass residues. So, this section is not applied.		Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.	☒	☒
Data Checklist	Yes / No																						
Title in line with methodology?	N.A.																						
Data unit correctly expressed?	N.A.																						
Appropriate description of parameter?	N.A.																						
Source clearly referenced?	N.A.																						
Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
B.6.2.6. Parameter Title: Quantity of fossil fuel type i combusted during the most recent three years in the captive power plant FF _{CP, historic, 3y}	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> The project activity is a new installed power plant, hence, this section needs not be considered.		Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.	☒	☒
Data Checklist	Yes / No																						
Title in line with methodology?	N.A.																						
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Source clearly referenced?	N.A.																						
Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
B.6.2.7. Parameter Title:	1, 2,			☒	☒																		

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Average net efficiency of heat generation in the project plant prior to project implementation $\epsilon_{th_pre\ project}$	3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> Heat generation is not considered in this case, so this section is inapplicable.	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.			
Data Checklist	Yes / No																						
Title in line with methodology?	N.A.																						
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Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
B.6.2.8. Parameter Title: Average net efficiency of electricity generation in the project plant prior to project implementation $\epsilon_{el_pre\ project}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> The project activity is a new installed power plant, hence, this section needs not be considered.	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.	☒	☒	☒
Data Checklist	Yes / No																						
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Source clearly referenced?	N.A.																						
Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
B.6.2.9. Parameter Title: Average net efficiency of electricity generation in biomass residue fired power plants in the grid that fire the same type of biomass residues as the project plant. $\epsilon_{el_grid\ plants}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	☒	☒	☒								
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Source clearly referenced?	N.A.																						

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Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
		There's no existing biomass residue fired power plant, so this section is inapplicable.																					
B.6.2.10. Parameter Title: Average net energy efficiency of power / heat generation in the reference power / cogeneration plant that would use the biomass residues fired in the project plant in the absence of the project activity $\epsilon_{el, \text{reference plant}}$. $\epsilon_{th_reference \text{ plant}}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.		☒	☒
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Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
		The project activity is a new installed power plant, hence, this section needs not be considered.																					
B.6.2.11. Parameter Title: Average net efficiency of electricity / heat generation in the existing power / cogeneration plant(s) fired with the same type of biomass residue at the project site $\epsilon_{el, \text{existing plant}}$. $\epsilon_{th_existing \text{ plant}}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.		☒	☒
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Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						

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		No power plant utilizing biomass residues locates at or nearby the project site, thus, this section needs not be considered.																				
B.6.2.12. Parameter Title: Net quantity of heat generated during the most recent three years in all cogeneration plants at the project site, generated from firing the same type(s) of biomass residues as in the project plant $Q_{\text{historic 3y}}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> Heat generation is not considered in this case, hence, this section is not applicable.	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.	☒	☒
Data Checklist	Yes / No																					
Title in line with methodology?	N.A.																					
Data unit correctly expressed?	N.A.																					
Appropriate description of parameter?	N.A.																					
Source clearly referenced?	N.A.																					
Correct value provided?	N.A.																					
Has this value been verified?	N.A.																					
Choice of data correctly justified?	N.A.																					
Measurement method correctly described?	N.A.																					
B.6.2.13. Parameter Title: Net quantity of heat generated during the most recent three years in all boilers at the project site, generated from firing the same type(s) of biomass residues as in the project plant $Q_{\text{biomass historic 3y}}$	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table> Heat generation is not considered in this case, hence, this section is not applicable.	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.	☒	☒
Data Checklist	Yes / No																					
Title in line with methodology?	N.A.																					
Data unit correctly expressed?	N.A.																					
Appropriate description of parameter?	N.A.																					
Source clearly referenced?	N.A.																					
Correct value provided?	N.A.																					
Has this value been verified?	N.A.																					
Choice of data correctly justified?	N.A.																					
Measurement method correctly described?	N.A.																					
B.6.2.14. Parameter Title: Quantity of biomass residue type k that has been fired in boilers for heat genera-	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	☒	☒														
Data Checklist	Yes / No																					
Title in line with methodology?	N.A.																					

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tion during the most recent three years at the project site BF _k , Boiler, historic 3y		<table><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.							
Data unit correctly expressed?	N.A.																						
Appropriate description of parameter?	N.A.																						
Source clearly referenced?	N.A.																						
Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
		This baseline scenario is not applied to the proposed project, therefore, this section needs not be considered.																					
B.6.2.15. Parameter Title: Energy efficiency of the biomass residue fired boiler that would be used in the absence of the project activity ε _{boiler biomass}	1, 2, 3	<table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.	Choice of data correctly justified?	N.A.	Measurement method correctly described?	N.A.		☑	☑
Data Checklist	Yes / No																						
Title in line with methodology?	N.A.																						
Data unit correctly expressed?	N.A.																						
Appropriate description of parameter?	N.A.																						
Source clearly referenced?	N.A.																						
Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						
Choice of data correctly justified?	N.A.																						
Measurement method correctly described?	N.A.																						
		This baseline scenario is not applied to the proposed project, therefore, this section needs not be considered.																					
B.6.2.16. Parameter Title: Quantity of biomass residue type k used as fuel in all installations (power plants, boilers, etc) at the project site during the most recent three years prior to the implementation of the project activity BF _{historic, k, 3y}	1, 2, 3	<table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided?	N.A.	Has this value been verified?	N.A.		☑	☑				
Data Checklist	Yes / No																						
Title in line with methodology?	N.A.																						
Data unit correctly expressed?	N.A.																						
Appropriate description of parameter?	N.A.																						
Source clearly referenced?	N.A.																						
Correct value provided?	N.A.																						
Has this value been verified?	N.A.																						

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		Choice of data correctly justified?	N.A.																				
		Measurement method correctly described?	N.A.																				
		The project activity is a new installed power plant, hence, this section needs not be considered.																					
B.6.2.17. Parameter Title: Moisture content of each biomass residue type k or i	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	See CAR 7	☒
Data Checklist	Yes / No																						
Title in line with methodology?	No																						
Data unit correctly expressed?	No																						
Appropriate description of parameter?	No																						
Source clearly referenced?	No																						
Correct value provided?	No																						
Has this value been verified?	No																						
Choice of data correctly justified?	No																						
Measurement method correctly described?	No																						
		Pls. see CAR 7 for information.																					
B.6.2.18. Parameter Title: Net calorific values of fossil fuel type i NCV _i	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	☒	☒
Data Checklist	Yes / No																						
Title in line with methodology?	Yes																						
Data unit correctly expressed?	Yes																						
Appropriate description of parameter?	Yes																						
Source clearly referenced?	Yes																						
Correct value provided?	Yes																						
Has this value been verified?	Yes																						
Choice of data correctly justified?	Yes																						
Measurement method correctly described?	Yes																						
B.6.3. Ex-ante calculation of emission reductions																							
B.6.3.1. Is the projection based on the same procedures as used for future monitoring?	1, 3	Pls. see CAR 5, CAR 7 and CAR 8. Because of biomass shipping the emissions of leakage, the electricity consumption at the project site and the diesel consumption shall be considered for		See CAR 5,	☒																		

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		both projection estimation and future monitoring.	7, 8	
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	1, 3	Yes, the formulae and data are all demonstrated in Chapter B.6.3. of the PDD. However, referred to CAR 5, CAR 7, the calculation processes and results shall be updated.	See CAR 5 CAR 7	☒
B.6.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1, 3	Yes, the data of each parameter are consistent throughout the entire PDD.	☒	☒
B.6.3.4. Are calculation tools used? If so is the data used in the tools consistent with the stated in the PDD?	1, 3	Besides the spreadsheet of the emission factor of the defined grid, the rest calculation procedures are demonstrated in the PDD. So far, no calculation tools are used.	☒	☒
B.6.4. Summary of the ex-ante estimation of emission reductions				
B.6.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	1, 3	Though there are some faults in the baseline and in the project emission calculations, being a biomass residue fired project, it's doubtless that the emissions due to the project activity are much lower than the baseline scenario.	☒	☒
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	1, 3	Yes. The form includes the crediting period, the emissions of project activity and the baseline together with the leakage and the final annual emission reductions.	☒	☒
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1, 3	Pls. kindly refer to CAR 3, the starting date of the crediting period should be revised.	See CAR 3	☒
B.6.4.4. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1, 3	Yes, the data demonstrated in the table B.6.4 are consistent to that in other chapters of the PDD. However, pls. refer to the requirements of correction in this protocol. The calculations need to be updated or modified.	See CAR 5 CAR 7	☒

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B.7. Application of the monitoring methodology and description of the monitoring plan																												
B.7.1. Data and parameters monitored																												
B.7.1.1. Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	1, 2	The list of required parameters necessary for the monitoring is not complete. Pls. kindly refer to the following issues B.7.1.2 –B.7.1.3 of the protocol for the revision. Furthermore, according to the requirement of the methodology, all data collected as part of monitoring should be archived electronically, pls. take it into account while setting out the relevant procedures.	See CAR 10-19 CR 4-6	☒																								
B.7.1.2. Parameter Title: Quantity of biomass residue type k combusted in the project plant during the year y BF _{k,y}	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table> <u>Clarification Request 4:</u> Besides the revision required from CAR 7, to monitor the BF_{k,y}, the PDD shall also provide a clear description on the measuring equipment, the accuracy of this instrument and the related calibration process to monitor this parameter.	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	No	Measurement method correctly described?	Yes	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes	CR 4 See CAR 7	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	Yes																											
Has this value been verified?	No																											
Measurement method correctly described?	Yes																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	Yes																											
QA/QC procedures appropriate?	Yes																											
B.7.1.3. Parameter Title: Moisture content of the biomass residues	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td></td><td></td></tr></table>	Monitoring Checklist	Yes / No			CAR 10	☒																				
Monitoring Checklist	Yes / No																											

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		Title in line with methodology?	No		
		Data unit correctly expressed?	No		
		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided for estimation?	No		
		Has this value been verified?	No		
		Measurement method correctly described?	No		
		Correct reference to standards?	No		
		Indication of accuracy provided?	No		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
		<u>Corrective Action Request 10:</u> According to the methodology, to monitor the moisture content of the biomass residues is a must, pls. add it into B.7.1. of the PDD. Moreover, the related measuring equipment, the accuracy of the instrument, the monitoring procedure and the calibration process shall be clearly described in the PDD.			
B.7.1.4. Parameter Title: CH4 emission factor for the combustion of biomass residues in the project plant EF _{CH4,BF}	1, 2	Monitoring Checklist		CAR 11	☑
		Title in line with methodology?	No		
		Data unit correctly expressed?	No		
		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided for estimation?	Yes		
		Has this value been verified?	Yes		
		Measurement method correctly described?	No		
		Correct reference to standards?	No		
		Indication of accuracy provided?	No		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		

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		<u>Corrective Action Request 11:</u> At the validation phase, the IPCC default value is used. It has been verified that the figure is consistent to the Table 3 of the methodology. However, the PDD does not provide the method on how to monitor this parameter in the crediting period. Pls. clarify this in Chapter B.7.1. of the PDD.																										
B.7.1.5. Parameter Title: Average round trip distance (from and to) between biomass fuel supply sites and the project site AVD _y	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>Yes</td></tr><tr><td>QA/QC procedures described?</td><td>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes	☒	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	Yes																											
Has this value been verified?	Yes																											
Measurement method correctly described?	Yes																											
Correct reference to standards?	Yes																											
Indication of accuracy provided?	Yes																											
QA/QC procedures described?	Yes																											
QA/QC procedures appropriate?	Yes																											
B.7.1.6. Parameter Title: Number of truck trips for the transportation of biomass. N _y	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	☒	☒								
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N.A.																											
Data unit correctly expressed?	N.A.																											
Appropriate description of parameter?	N.A.																											
Source clearly referenced?	N.A.																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	N.A.																											

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		Correct reference to standards?	N.A.		
		Indication of accuracy provided?	N.A.		
		QA/QC procedures described?	N.A.		
		QA/QC procedures appropriate?	N.A.		
		Not applicable, because Option 1 is chosen for the project emission calculation, this parameter needs not be considered.			
B.7.1.7. Parameter Title: Average truck load of the trucks used for transportation of biomass. TL _y	1, 2	Monitoring Checklist	Yes / No	☒	☒
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	Yes		
		Correct value provided for estimation?	Yes		
		Has this value been verified?	Yes		
		Measurement method correctly described?	Yes		
		Correct reference to standards?	Yes		
		Indication of accuracy provided?	Yes		
		QA/QC procedures described?	Yes		
		QA/QC procedures appropriate?	Yes		
B.7.1.8. Parameter Title: Average CO2 emission factor for the trucks during the year y EF _{km,CO2,y}	1, 2	Monitoring Checklist	Yes / No	CAR 12	☒
		Title in line with methodology?	No		
		Data unit correctly expressed?	No		
		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided for estimation?	Yes		
		Has this value been verified?	Yes		
		Measurement method correctly described?	No		

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		<table><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No																			
Correct reference to standards?	No																												
Indication of accuracy provided?	No																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
		<u>Corrective Action Request 12:</u> The methodology does not provide the reference or formula on how to obtain the figure of this parameter. A formula together with the related process are developed by the project developer and demonstrated in the PDD, which have been verified by the audit team. As required by the methodology, $EF_{km,CO2,y}$ shall be monitored regularly, pls. add it into the revised PDD.																											
B.7.1.9. Parameter Title: Mass or volume unit $FC_{TR,i,y}$	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.		☒	☒
Monitoring Checklist	Yes / No																												
Title in line with methodology?	N.A.																												
Data unit correctly expressed?	N.A.																												
Appropriate description of parameter?	N.A.																												
Source clearly referenced?	N.A.																												
Correct value provided for estimation?	N.A.																												
Has this value been verified?	N.A.																												
Measurement method correctly described?	N.A.																												
Correct reference to standards?	N.A.																												
Indication of accuracy provided?	N.A.																												
QA/QC procedures described?	N.A.																												
QA/QC procedures appropriate?	N.A.																												
		Not applicable, because Option 1 is chosen for the project emission calculation. This parameter needs not be considered.																											
B.7.1.10. Parameter Title: CO2 emission factor for fossil fuel type i $EF_{CO2,FF,i}$	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No		CAR 13	☒																				
Monitoring Checklist	Yes / No																												
Title in line with methodology?	No																												

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		<table> <tr><td>Data unit correctly expressed?</td><td>No</td></tr> <tr><td>Appropriate description of parameter?</td><td>No</td></tr> <tr><td>Source clearly referenced?</td><td>Yes</td></tr> <tr><td>Correct value provided for estimation?</td><td>Yes</td></tr> <tr><td>Has this value been verified?</td><td>Yes</td></tr> <tr><td>Measurement method correctly described?</td><td>No</td></tr> <tr><td>Correct reference to standards?</td><td>No</td></tr> <tr><td>Indication of accuracy provided?</td><td>No</td></tr> <tr><td>QA/QC procedures described?</td><td>No</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>No</td></tr> </table> <u>Corrective Action Request 13:</u> Though this parameter is considered for the calculation of the project emissions, it has not been included in the required monitoring parameters list. Pls. correct.	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No							
Data unit correctly expressed?	No																												
Appropriate description of parameter?	No																												
Source clearly referenced?	Yes																												
Correct value provided for estimation?	Yes																												
Has this value been verified?	Yes																												
Measurement method correctly described?	No																												
Correct reference to standards?	No																												
Indication of accuracy provided?	No																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
B.7.1.11. Parameter Title: CO2 emission factor of the fossil fuel type i used for heat generation in the absence the project activity $EF_{CO2,BL,heat,i}$	1, 2	<table> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>N.A.</td></tr> <tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr> <tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr> <tr><td>Source clearly referenced?</td><td>N.A.</td></tr> <tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr> <tr><td>Has this value been verified?</td><td>N.A.</td></tr> <tr><td>Measurement method correctly described?</td><td>N.A.</td></tr> <tr><td>Correct reference to standards?</td><td>N.A.</td></tr> <tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr> <tr><td>QA/QC procedures described?</td><td>N.A.</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr> </table> The generation of heat is not considered in the proposed project, hence, this parameter is inapplicable.	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.		☑	☑
Monitoring Checklist	Yes / No																												
Title in line with methodology?	N.A.																												
Data unit correctly expressed?	N.A.																												
Appropriate description of parameter?	N.A.																												
Source clearly referenced?	N.A.																												
Correct value provided for estimation?	N.A.																												
Has this value been verified?	N.A.																												
Measurement method correctly described?	N.A.																												
Correct reference to standards?	N.A.																												
Indication of accuracy provided?	N.A.																												
QA/QC procedures described?	N.A.																												
QA/QC procedures appropriate?	N.A.																												

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B.7.1.12. Parameter Title: Quantity of fossil fuel type i combusted in the biomass residue fired power plant during the year y $FF_{\text{project plant},i,y}$	1, 2	<table> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>No</td></tr> <tr><td>Data unit correctly expressed?</td><td>No</td></tr> <tr><td>Appropriate description of parameter?</td><td>No</td></tr> <tr><td>Source clearly referenced?</td><td>No</td></tr> <tr><td>Correct value provided for estimation?</td><td>No</td></tr> <tr><td>Has this value been verified?</td><td>No</td></tr> <tr><td>Measurement method correctly described?</td><td>No</td></tr> <tr><td>Correct reference to standards?</td><td>No</td></tr> <tr><td>Indication of accuracy provided?</td><td>No</td></tr> <tr><td>QA/QC procedures described?</td><td>No</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>No</td></tr> </table> <u>Corrective Action Request 14:</u> Referring to CR 3 the amount used for the on site emissions of the fossil fuel consumption is not clear. Moreover, this parameter shall be included in Chapter B.7.1. of the PDD. Pls. deliver the information of the measuring equipment (including accuracy), measurement procedure and calibration process as well.	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 14 See CR 3	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
B.7.1.13. Parameter Title: 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 $FF_{\text{project site},i,y}$	1, 2	<table> <tr> <th>Monitoring Checklist</th> <th>Yes / No</th> </tr> <tr><td>Title in line with methodology?</td><td>No</td></tr> <tr><td>Data unit correctly expressed?</td><td>No</td></tr> <tr><td>Appropriate description of parameter?</td><td>No</td></tr> <tr><td>Source clearly referenced?</td><td>No</td></tr> <tr><td>Correct value provided for estimation?</td><td>No</td></tr> <tr><td>Has this value been verified?</td><td>No</td></tr> <tr><td>Measurement method correctly described?</td><td>No</td></tr> <tr><td>Correct reference to standards?</td><td>No</td></tr> <tr><td>Indication of accuracy provided?</td><td>No</td></tr> </table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	See CAR 14	☒				
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											

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		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
		Pls. kindly refer to CAR 14.			
B.7.1.14. Parameter Title: Quantity of steam diverted from other boilers to the project plant.	1, 2	Monitoring Checklist	Yes / No	☒	☒
		Title in line with methodology?	N.A.		
		Data unit correctly expressed?	N.A.		
		Appropriate description of parameter?	N.A.		
		Source clearly referenced?	N.A.		
		Correct value provided for estimation?	N.A.		
		Has this value been verified?	N.A.		
		Measurement method correctly described?	N.A.		
		Correct reference to standards?	N.A.		
		Indication of accuracy provided?	N.A.		
		QA/QC procedures described?	N.A.		
		QA/QC procedures appropriate?	N.A.		
		The generation of heat is not included in the project activity, hence this parameter is not applicable.			
B.7.1.15. Parameter Title: Average net efficiency of steam generation in the plant(s) from where steam is diverted to the project plant	1, 2	Monitoring Checklist	Yes / No	☒	☒
		Title in line with methodology?	N.A.		
		Data unit correctly expressed?	N.A.		
		Appropriate description of parameter?	N.A.		
		Source clearly referenced?	N.A.		
		Correct value provided for estimation?	N.A.		
		Has this value been verified?	N.A.		
		Measurement method correctly described?	N.A.		
		Correct reference to standards?	N.A.		
		Indication of accuracy provided?	N.A.		

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		QA/QC procedures described?	N.A.																										
		QA/QC procedures appropriate?	N.A.																										
		The generation of heat is not included in the project activity, hence this parameter is not applicable.																											
B.7.1.16. Parameter Title: Net quantity of electricity generated in the project plant during the year y EG _{project plant,y}	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>Yes</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <u>Clarification Request 5</u> The description in the PDD does not provide a clear description on the following information: - the locations of meters are installed and the accuracy of all the meters; - whether these meters would be double checked; - the procedure to measure the electricity supplied from the grid, in case the project activity could not produce electricity by itself. Pls. add the related explanation, including a sketch map, into the revised PDD.		Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CR 5	☒
Monitoring Checklist	Yes / No																												
Title in line with methodology?	No																												
Data unit correctly expressed?	Yes																												
Appropriate description of parameter?	Yes																												
Source clearly referenced?	Yes																												
Correct value provided for estimation?	Yes																												
Has this value been verified?	Yes																												
Measurement method correctly described?	No																												
Correct reference to standards?	Yes																												
Indication of accuracy provided?	Yes																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
B.7.1.17. Parameter Title:	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr></table>		Monitoring Checklist	Yes / No	☒	☒																						
Monitoring Checklist	Yes / No																												

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Net quantity of electricity generated in the fossil fuel fired captive power plant during the year y EG _{CP,y}		Title in line with methodology?	N.A.				
		Data unit correctly expressed?	N.A.				
		Appropriate description of parameter?	N.A.				
		Source clearly referenced?	N.A.				
		Correct value provided for estimation?	N.A.				
		Has this value been verified?	N.A.				
		Measurement method correctly described?	N.A.				
		Correct reference to standards?	N.A.				
		Indication of accuracy provided?	N.A.				
		QA/QC procedures described?	N.A.				
		QA/QC procedures appropriate?	N.A.				
		There's no captive power plant, hence this parameter is not applicable.					
B.7.1.18. Parameter Title: Net quantity of electricity generated in all power units at the project site, generated from firing the same type(s) of biomass residues as in the project plant, including the new power unit installed as part of the project activity and any previously existing units, during the year y EG _{total,y}	1, 2	Monitoring Checklist	Yes / No	☑	☑		
		Title in line with methodology?	N.A.				
		Data unit correctly expressed?	N.A.				
		Appropriate description of parameter?	N.A.				
		Source clearly referenced?	N.A.				
		Correct value provided for estimation?	N.A.				
		Has this value been verified?	N.A.				
		Measurement method correctly described?	N.A.				
		Correct reference to standards?	N.A.				
		Indication of accuracy provided?	N.A.				
		QA/QC procedures described?	N.A.				
		QA/QC procedures appropriate?	N.A.				
		This parameter is not applicable, because the proposed project is a new installed plant. No biomass residues fired project is existing at the defined site .					

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B.7.1.19. Parameter Title: Net quantity of heat generated from firing biomass in the project plant $Q_{\text{project plant},y}$	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table> Since the generation of heat is not considered in this project, this parameter is inapplicable.	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.	☒	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N.A.																											
Data unit correctly expressed?	N.A.																											
Appropriate description of parameter?	N.A.																											
Source clearly referenced?	N.A.																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	N.A.																											
Correct reference to standards?	N.A.																											
Indication of accuracy provided?	N.A.																											
QA/QC procedures described?	N.A.																											
QA/QC procedures appropriate?	N.A.																											
B.7.1.20. Parameter Title: Net quantity of heat generated in all cogeneration units at the project site, generated from firing the same type(s) of biomass residues as in the project plant, including the cogeneration unit installed as part of the project activity and any previously existing units, during the year y $Q_{\text{total},y}$	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table> Since the generation of heat is not considered in this project, this	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.	☒	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N.A.																											
Data unit correctly expressed?	N.A.																											
Appropriate description of parameter?	N.A.																											
Source clearly referenced?	N.A.																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	N.A.																											
Correct reference to standards?	N.A.																											
Indication of accuracy provided?	N.A.																											
QA/QC procedures described?	N.A.																											
QA/QC procedures appropriate?	N.A.																											

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		parameter is inapplicable.																										
B.7.1.21. Parameter Title: Net calorific value of the fossil fuel type i NCV _i	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <u>Corrective Action Request 15:</u> Pls. add the parameter, NCV_i into the list in B.7.1. If the IPCC default value is adopted, pls. present the procedure to ensure the appropriateness of the data which would be reviewed annually.	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 15	☑
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	Yes																											
Has this value been verified?	Yes																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											

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B.7.1.22. Parameter Title: Net calorific value of biomass residue type k NCV _k	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <u>Clarification Request 6:</u> Until the on site audit the qualified testing institution has not been determined, Pls. deliver the authorized certificate of the institution to the DOE if possible. Furthermore, pls. kindly insert the related testing regulations into the PDD, which includes but are not limited to: - Monitoring frequency: at least every 6 months; - The sample shall be dry biomass; - Equipments used for testing (the accuracy and calibration process of these equipments); - QA/QC procedures.	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CR 6	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
B.7.1.23. Parameter Title: CH4 emission factor for uncontrolled burning of the biomass residue type k during the year y EF _{burning,CH4,k,y}	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	Yes	CAR 16	☒												
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	Yes																											

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		<table><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>	Has this value been verified?	Yes	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No															
Has this value been verified?	Yes																												
Measurement method correctly described?	No																												
Correct reference to standards?	No																												
Indication of accuracy provided?	No																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
		<u>Corrective Action Request 16:</u> Pls. add the parameter, $EF_{\text{burning,CH}_4,k,y}$, into the list in B.7.1. If the IPCC default value is adopted, pls. present the procedure to ensure the appropriateness of the data that would be reviewed annually.																											
B.7.1.24. Parameter Title: Average net energy efficiency of heat generation in the boiler that would generate heat in the absence of the project activity ε boiler	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.		☑	☑
Monitoring Checklist	Yes / No																												
Title in line with methodology?	N.A.																												
Data unit correctly expressed?	N.A.																												
Appropriate description of parameter?	N.A.																												
Source clearly referenced?	N.A.																												
Correct value provided for estimation?	N.A.																												
Has this value been verified?	N.A.																												
Measurement method correctly described?	N.A.																												
Correct reference to standards?	N.A.																												
Indication of accuracy provided?	N.A.																												
QA/QC procedures described?	N.A.																												
QA/QC procedures appropriate?	N.A.																												
		The heat generation is not considered in this project, so this parameter is not applicable.																											
B.7.1.25. Parameter Title: Demonstration that the biomass residue type k from a specific source would	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.		☑	☑																				
Monitoring Checklist	Yes / No																												
Title in line with methodology?	N.A.																												

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continuesly not be collected or utilized, e.g. by an assessment whether a market has emerged for that type of biomass residue (if yes, leakage is assumed not to be ruled out) or by showing that it would still not be feasible to utilize the biomass residues for any purposes.		Data unit correctly expressed?	N.A.		
		Appropriate description of parameter?	N.A.		
		Source clearly referenced?	N.A.		
		Correct value provided for estimation?	N.A.		
		Has this value been verified?	N.A.		
		Measurement method correctly described?	N.A.		
		Correct reference to standards?	N.A.		
		Indication of accuracy provided?	N.A.		
		QA/QC procedures described?	N.A.		
		QA/QC procedures appropriate?	N.A.		
		The L2 is used to demonstrate that the leakage emissions need not to be considered, hence, this monitoring procedure is not applicable.			
B.7.1.26. Parameter Title: Quantity of biomass residues of type k that are utilized (e.g. for energy generation or as feedstock) in the defined geographical region	1, 2			CAR 17 See CAR 8	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	No		
		Data unit correctly expressed?	No		
		Appropriate description of parameter?	No		
		Source clearly referenced?	No		
		Correct value provided for estimation?	No		
		Has this value been verified?	No		
		Measurement method correctly described?	No		
		Correct reference to standards?	No		
		Indication of accuracy provided?	No		
		QA/QC procedures described?	No		
		QA/QC procedures appropriate?	No		
		<u>Corrective Action Request 17:</u> The procedure to acquire the yearly quantity of available biomass residues and that are used in the defined region shall be included			

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		in the revised PDD. Furthermore, pls. also consider the issue raised from CAR 8.																										
B.7.1.27. Parameter Title: Quantity of available biomass residues of type k in the region	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> Pls. refer to B.7.1.26 of the protocol.	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	See CAR 17	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
B.7.1.28. Parameter Title: Availability of a surplus of biomass residue type k (which can not be sold or utilized) at the ultimate supplier to the project and a representative sample of other suppliers in the defined geographical region.	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.	☒	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N.A.																											
Data unit correctly expressed?	N.A.																											
Appropriate description of parameter?	N.A.																											
Source clearly referenced?	N.A.																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	N.A.																											
Correct reference to standards?	N.A.																											
Indication of accuracy provided?	N.A.																											
QA/QC procedures described?	N.A.																											
QA/QC procedures appropriate?	N.A.																											

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		The L2 is used to demonstrate that the leakage emissions need not be considered, hence, this monitoring procedure is not applicable.																										
B.7.1.29. Parameter Title: On-site electricity consumption attributable to the project activity during the year y $EC_{PJ,y}$	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <u>Corrective Action Request 18:</u> Kept at the issue raised from CAR 4, the procedure on measuring the electricity consumed because of the project activity on site shall be added into the PDD. Moreover, the measurement instruments and the relevant calibration process shall also be delivered.	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 18 See CAR 4	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
B.7.1.30. Parameter Title: Use the latest approved version of ACM0002 to calculate the grid emission factor. If the power generation capacity of the project plant is less or equal to 15 MW, project participants may use the average CO2 emission factor of the electricity system, as referred to in option (d) in step 1 of the baseline determination in ACM0002.	1, 2	As mentioned above, the scenario of project activity fulfills the criteria of implementing the ACM0002 for the $EF_{grid,y}$ estimation. Stated in the PDD, the ex-ante approach is chosen. Hence, this parameter needs not to be monitored in the 1 st crediting period.	☒	☒																								

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EF _{grid,y}																												
B.7.1.31. Parameter Title: Quantity of biomass residue type k combusted in all power plants at the project site during the year y Source of data: On-site measurements BF _{all plants,k,y}	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table> This parameter only applies to scenario 10, so the project developer needs not consider it.	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.	☒	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N.A.																											
Data unit correctly expressed?	N.A.																											
Appropriate description of parameter?	N.A.																											
Source clearly referenced?	N.A.																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	N.A.																											
Correct reference to standards?	N.A.																											
Indication of accuracy provided?	N.A.																											
QA/QC procedures described?	N.A.																											
QA/QC procedures appropriate?	N.A.																											
B.7.1.32. Parameter Title: CO2 emission factor of the most carbon intensive fuel used in the country EF _{CO2,LE}	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR 19	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	No																											
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Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											

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		<u>Corrective Action Request 19:</u> As demonstrated in the PDD, L2 is applied to the project activity at the validation stage. However, in the crediting period, in case of leakages could not be ruled out as per the criteria of L2, the emission due to the leakages shall be considered for the emissions reduction calculation. Hence, the parameter, $EF_{CO_2,LE}$, shall be monitored periodically.																										
B.7.1.33. Parameter Title: CO2 emission factor for the fossil fuel used in the captive power plant EF_{CP,CO_2}	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	N.A.	Data unit correctly expressed?	N.A.	Appropriate description of parameter?	N.A.	Source clearly referenced?	N.A.	Correct value provided for estimation?	N.A.	Has this value been verified?	N.A.	Measurement method correctly described?	N.A.	Correct reference to standards?	N.A.	Indication of accuracy provided?	N.A.	QA/QC procedures described?	N.A.	QA/QC procedures appropriate?	N.A.	☒	☒
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N.A.																											
Data unit correctly expressed?	N.A.																											
Appropriate description of parameter?	N.A.																											
Source clearly referenced?	N.A.																											
Correct value provided for estimation?	N.A.																											
Has this value been verified?	N.A.																											
Measurement method correctly described?	N.A.																											
Correct reference to standards?	N.A.																											
Indication of accuracy provided?	N.A.																											
QA/QC procedures described?	N.A.																											
QA/QC procedures appropriate?	N.A.																											
B.7.2. Description of the monitoring plan																												
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1	Yes, the management structure is clearly characterized in the PDD, though the monitoring manual is not available at validation. The monitoring manager is responsible for the daily monitoring work at the project site, including data recording, archiving and preparing for the monitoring report periodically. The Chinese CDM project director at the head office in Beijing is in charge of reviewing the monitoring reports.	☒	☒																								

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B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1	Pls. see B.7.1.1. of the protocol.	See CAR 10-19 CR 4-6	☒
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1	Additional description is required to deliver. Pls. refer to CAR 10-19, CR 4-6.	See CAR 10-19 CR 4-6	☒
B.7.2.4. If applicable: Does Annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1	There's no additional content in Annex 4 of the PDD, hence, this section is inapplicable.	☒	☒
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)				
B.8.1. Is there any indication of a date when the baseline was determined?	1	The baseline is determined on Nov. 28 th , 2006.	☒	☒
B.8.2. Is this consistent with the time line of the PDD history?	1	Yes, it is also the day of accomplishing the PDD which is used for both on site assessment and GSP.	☒	☒
B.8.3. Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1	The audit team has verified on site that the PDD is developed by the Global Climate Change Institute, Tsinghua University. The information presented in Chapter B.8 is correct.	☒	☒
B.8.4. Is information provided whether this person / entity is also considered a project participant?	1	The Global Climate Change Institute, Tsinghua University is the CDM developer. He is not a project participant of the proposed project.	☒	☒

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C. Duration of the project activity / crediting period				
C.1. Duration of the project activity				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	1	<u>Corrective Action Request 20:</u> Besides the issue raised at CAR 3, pls. correct the starting date of the project activity with the starting date of construction.	CAR 20 See CAR 3	☒
C.2. Choice of the crediting period and related information				
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1	Allowing for the lifetime of the project activity, 25 years are assumed. It seems to be reasonable that the max. of 7 years with potential for 2 renewals are chosen as the crediting period.	☒	☒
D. Environmental impacts				
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts				
D.1.1. Has the analysis of the environmental impacts of the project activity been sufficiently described?	1, 25, 26	Yes, the environmental impacts of the project activity such as noise, visual impacts, interference with communication, land use, air quality and water usage have been clearly described.	☒	☒
D.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1, 25, 26	Yes, an EIA is a must in the P. R. China for new installation of power plant. The EIA survey was carried out by Jiangsu Environmental Science Institute and issued in Mar., 2006. The EIA was approved by the EPB of Jiangsu Province in May, 2006. The documents have been reviewed by the DOE.	☒	☒
D.1.3. Will the project create any adverse environmental effects?	1, 25,	<u>Corrective Action Request 21:</u> Referred to the EIA and the approval of the EIA, the smoke and	CAR 21	☒

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
		26	flue gas by-produced by the project activity shall be monitored and shall not exceed the upper limit of the relevant national standards. Pls. add the detailed requirement delivered by the approved EIA into the revised PDD.		
D.1.4.	Were transboundary environmental impacts identified in the analysis?	1, 25, 26	The proposed project locates within China, hence, this section is not applicable.	☒	☒
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party					
D.2.1.	Have the identified environmental impacts been addressed in the project design sufficiently?	1, 25, 26	Referred to the EIA and the Approval of EIA, the impacts on the environment are not significant.	☒	☒
D.2.2.	Does the project comply with environmental legislation in the host country?	1, 25, 26	Yes, it does.	☒	☒
E. Stakeholders' comments					
E.1. Brief description how comments by local stakeholders have been invited and compiled					
E.1.1.	Have relevant stakeholders been consulted?	1, 27, 28, 29	The local stakeholders have been consulted through a round table discussion on Nov. 22nd, 2006 and a survey via questionnaires has been distributed by the project owner at the beginning of 2007. <u>Corrective Action Request 22:</u> It was found on site that about 100 copies from the questionnaire were sent back to the project owner and a analysis report has been carried out. Whereas, the PDD only gives the information	CAR 22	☒

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			from the survey report which was done while preparing the EIA report in 2006. Hence, the description in the PDD shall be updated with the latest report as per CDM requirements.		
E.1.2.	Have appropriate media been used to invite comments by local stakeholders?	1, 27, 28, 29	Pls. see CAR 22.	See CAR 22	☒
E.1.3.	If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1, 27, 28, 29	A stakeholder consultation is a must when the EIA is prepared. Its purpose is obtaining the opinion on the environmental impacts which is part of the purpose of the CDM stakeholder process.	☒	☒
E.1.4.	Is the undertaken stakeholder process, that was carried out, described in a complete and transparent manner?	1, 27, 28, 29	Pls. kindly refer to CAR 22.	See CAR 22	☒
E.2. Summary of the comments received					
E.2.1.	Is a summary of the received stakeholder comments provided?	1, 27, 28, 29	Pls. kindly refer to CAR 22.	See CAR 22	☒
E.3. Report on how due account was taken of any comments received					
E.3.1.	Has due account been taken of any stakeholder comments received?	1, 27, 28, 29	Pls. kindly refer to CAR 22.	See CAR 22	☒

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F. Annexes 1 - 4					
Annex 1: Contact Information					
F.1.1.	Is the information provided consistent with the one given under section A.3?	1	Please see A.3.2. of the protocol.	Open Issue	☒
F.1.2.	Is the information on all private participants and directly involved Parties presented?	1	Please see A.3.2. of the protocol.	Open Issue	☒
Annex 2: Information regarding public funding					
F.1.3.	Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1	Yes. Please see A.4.5.1 of the protocol.	☒	☒
F.1.4.	If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1	Referring to the description of A.4.5.1 of the protocol, this section is not applicable.	☒	☒
Annex 3: Baseline information					
F.1.5.	If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	1	Pls. kindly refer CAR 7. With regard to the calculation process, quoted data shall be completely demonstrated in Annex 3 and for reviewing pls. also send the spreadsheet to the DOE.	See CAR 7	☒
F.1.6.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1	Pls. see F.1.5. of the protocol.	See CAR 7	☒
F.1.7.	Does the additional information substan-	1	Pls. see F.1.5. of the protocol.	See	☒

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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PDD in GSP	Final PDD
tiate / support statements given in other sections of the PDD?				CAR 7	
Annex 4: Monitoring information					
F.1.8.	If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1	There's no additional background information mentioned in Annex 4 of the PDD.	☒	☒
F.1.9.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1	Pls. see F.1.8. of the protocol.	☒	☒
F.1.10.	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1	Pls. see F.1.8. of the protocol.	☒	☒

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Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
The location of the project is not clearly described in the PDD, pls. kindly add the following information into section A.4.1. of the PDD. <u>Corrective Action Request 1:</u> - Only names of the county and the province are given in the PDD. Pls. kindly add the city name (Yancheng City) into A.4.1.3. of the PDD; - Pls. present the exact geographical coordinates of the proposed project activity; - For the purpose of being understood well, please use maps marked with English.	A.4.1.1.	City name (Yancheng City) is added, Geographical coordinates and its evidence is provided Maps marked with English is provided	☑ Closed and verified.

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The proposed project installs a boiler with high temperature and high pressure. The equipment and technology are imported from Denmark, BWE Company which provides design with the advantage of no knotting residue and burning completely. Moreover, it has been successfully operated in some European countries, such as Denmark, UK and Germany etc. The Turbine and the generator are supplied by Wuhan Turbine and Generator Co., Ltd. which is also the lead company in turbine-generator industry in China. <u>Corrective Action Request 2:</u> - The type of the steam turbine is N30-8.83. Pls. kindly correct accordingly. - The cotton straws will be broken into pieces at the collection station, not at the plant site. Pls. correct the related description in A.4.3. of the PDD.	A.4.3.1.	The type of the steam turbine is revised to N30-8.83 The cotton straws will be broken into pieces at the collection station	☒ Closed.
The required form is correctly applied in the PDD. <u>Corrective Action Request 3:</u> Regarding the fact that the operation date would be in May, 2007, not at the first beginning of 2008 which is expected while preparing the PDD, an earlier starting date of crediting period is anticipated. Pls. revise the related statement in a reasonable manner.	A.4.4.1.	The starting date of crediting period is Nov. 2007	☒ closed

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<u>Corrective Action Request 4:</u> Referring to the calculation of the project emissions in Chapter B.6.3. of the PDD, the emissions caused by the consumption of the electricity at the plant site are zero. However, during the plant visiting, the electricity supplied from the grid does be used for operation. Pls. correct accordingly.	B.3.4.	The electricity refers to net quantity of electricity delivered to the grid, which is the total electricity production subtract the electricity supplied from the grid (self consumption) And the electricity for broken cotton is also assumed as 10 kwh/ton. The evidence is also provided. It has been corrected accordingly.	☒ closed
The project boundary includes: - the power plant at the project site; - the means for transportation of biomass to the project site, in this case, the biomass residues will be transported via both land and waterway; - all power plants connected physically to the East China Power Grid; <u>Corrective Action Request 5:</u> - If the biomass residues are dumped for leaving to decay without implementing in the project, the site where the biomass residues would have been left for decay or dumped shall also be included in the project spatial extent. Pls. add it into the revised PDD. - Introduced by the project owner, 8% cotton straws will be shipped to the big collection station. Pls. kindly consider the CO2 emissions due to such activity when calculating the emissions produced by off-site transportation of biomass residues.	B.3.7.	It is added into the revised PDD. For the transportation via waterway, from the conservative view, we consider the cotton straws all are transported to project site by land during calculation the emission from transportation. the evidence is provided Please see "E_CAR5", which shown that, oil consumption for road transportation is 6.25L per ton. For waterway is 1.1L per ton goods.	☒ Closed and verified by the local auditor.

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The IRR with / without CDM revenue are clearly demonstrated in the table at Sub-step 2c of the PDD. The spreadsheet in Chinese has been reviewed by the audit team. All the relative data for calculation are from the approved feasibility report. However, pls. make the revision for the following issues. <u>Corrective Action Request 6:</u> - Required by the EB meeting on Dec. 2006, the data and calculation process on figuring out the IRR shall be added into the PDD or attached to the PDD as an annex; - The preferential tax policy has not been considered while calculating the cash outflow. Pls. correct. - After the discussion with the project developer on site, the annual net electricity fed to the grid will be a sensitive parameter instead of the electricity tariff, therefore the related calculation and chart need to be revised.	B.5.4.	_The data and calculation process on figuring out the IRR is attached as an annex; _The preferential tax policy has been considered while calculating the cash outflow in the revised PDD. _The annual net electricity fed to the grid will be a sensitive parameter, and the related calculation and chart have been revised in revised PDD. Please refer to the IRR in pdf, "E_CAR6",	☒ Closed.
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<u>Corrective Action Request 7:</u> - According to the methodology, the <i>dry</i> weight of biomass residues shall be used for all the calculations. Hence, pls. consider the moisture content while estimating the emission reduction and demonstrate the calculation process into the revised PDD (from the approved report of feasibility study, the moisture is 10%); - Pls. update all the IPCC default values with the latest version of 2006, besides the default value used for the calculation of the defined grid EF; - The OM, BM figures published by NDRC are adopted in this case. However, the OM and BM of the East China Power Grid, not the North China Power Grid, shall be used for calculation; - Confirmed with the project owner on site, the diesel consumption per km is 0.06 l; the farthest round trip distance between the biomass supply sites and plant site is about 100 km, and the smallest truck load is 1 ton, hence, the PET_y needs to be re-calculated accordingly; - Even the OM and BM released by NDRC are adopted, for the purpose of assessment executed by the DOE, the EB and other global stakeholders, pls. add the complete calculation process into Annex 3 and demonstrate the entire procedures in Step 1 of B.6. of the PDD. Furthermore, pls. submit the spreadsheet to the audit team for review; - The formula (10) of the PEFF_y emissions could not present the real calculation process, pls. refer to the methodology and update it.	B.6.1.2.	- The moisture content 10% (FSR). -update all the IPCC default values with the latest version of 2006. - The updated OM, BM figures of the East China Power Grid published by NDRC is adopted in revised PDD. -The diesel consumption per km is 0.06 l; the farthest round trip distance between the biomass supply sites and plant site is about 100 km, and the smallest truck load is 1 ton, the PET_y has been re-calculated accordingly. - The complete calculation process is added into Annex 3 and the entire procedures are demonstrated in Step 1 of B.6. of the PDD. The formula (10) of the PEF_{Fy} emissions is updated.	☒ Closed.
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Option L2 is used to demonstrate that the usage of the biomass residues does not result in an increased fossil fuel consumption. Although the figure used for L2 discussion in the PDD could not be proved by an official document It's smaller than the one from the feasibility report (within the radius of 50km) and the abundant surplus of the cotton straws is already 143% larger than that consumed at the project site. Considering the additional information obtained from the site visiting, the audit team is confident that the quantity of available cotton straws in Wei County is at least 25% larger than used. Hence, the leakage at the validation stage deems to be zero. <u>Corrective Action Request 8:</u> Whereas, according to the methodology, the leakage shall be monitored during the crediting period in a defined geographical boundary of the region. In case, the leakage effects cannot be ruled out under the situation of L2. The emissions of leakage shall be included in the emission reduction calculation. The related formula and the parameters shall be demonstrated in the revised PDD.	B.6.1.6.	The related formula and the parameters to leakage are demonstrated in the revised PDD. According to FSR, the available straws within project region is 515% of that of the project, much greater than 25% requested by ACM0006. To conclude, the leakage can be neglected. The related formula and the parameters is demonstrated in the revised PDD as formula(12)	☒ Closed
Most of the parameters which determine the baseline and the project emissions are indicated in table B.6.2. However, some indicators are missing. <u>Corrective Action Request 9:</u> Pls. add the parameters, NCV_c, $FF_{\text{project plant, l, y}}$, $FF_{\text{project site, l, y}}$, and $EC_{P,j,y}$ into the list.	B.6.2.1.	These parameters can be found in B.7.1 because they are not available for validation and should be monitored. These parameter had been added in the B.6.2.1	☒ Closed

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<u>Corrective Action Request 10:</u> According to the methodology, to monitor the moisture content of the biomass residues is a must, pls. add it into B.7.1. of the PDD. Moreover, the related measuring equipment, the accuracy of the instrument, the monitoring procedure and the calibration process shall be clearly described in the PDD.	B.7.1.3.	The moisture content (10%) of the biomass residues is added into B.7.1. of the PDD. The related measuring equipment, the accuracy of the instrument, the monitoring procedure and the calibration process are added. The instrument and its accuracy is added in B.7.1 <u>DOE's First Response:</u> Pls. describe what kind of instrument is used and what the accuracy is. <u>Answer:</u> The measurement type is HMT2 and the accuracy is 12(±0.4). Please refer to "E_CAR10",	☒ Closed
<u>Corrective Action Request 11:</u> At the validation phase, the IPCC default value is used. It has been verified that the figure is consistent to the Table 3 of the methodology. However, the PDD does not provide the method on how to monitor this parameter in the crediting period. Pls. clarify this in Chapter B.7.1. of the PDD.	B.7.1.4.	EF_{CH4,BF} is added into B.7.1. of the revised PDD	☒ Closed

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<u>Corrective Action Request 12:</u> The methodology does not provide the reference or formula on how to obtain the figure of this parameter. A formula together with the related process are developed by the project developer and demonstrated in the PDD, which have been verified by the audit team. As required by the methodology, $EF_{km,CO2,y}$ shall be monitored regularly, pls. add it into the revised PDD.	B.7.1.8.	$EF_{km,CO2,y}$ is added into B.7.1. of the revised PDD.	☒ Closed
<u>Corrective Action Request 13:</u> Though this parameter is considered for the calculation of the project emissions, it has not been included in the required monitoring parameters list. Pls. correct.	B.7.1.10.	The emission factor of diesel is already provided <u>DOE's First response:</u> Even though the quantity is very small, as long as the diesel is possibly used, the parameter needs to be monitored. On the other hand, the $FF_{project, plant,d,y}$ is also monitored. These two will be used together, aren't they? <u>Answer:</u> It maybe some misunderstanding. In fact, the diesel for startup is also included, which is same as EF_d. Anyway, $EFCO2,FF,i$ is added in PDD. For on-site consumption of fossil fuels, except diesel, no other fossil fuel consumption during the startup and operation. Please see "E_CAR13"	☒ Closed

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<u>Corrective Action Request 14:</u> Referring to CR 3 the amount used for the on site emissions of the fossil fuel consumption is not clear. Moreover, this parameter shall be included in Chapter B.7.1. of the PDD. Pls. deliver the information of the measuring equipment (including accuracy), measurement procedure and calibration process as well.	B.7.1.12	FF_{project plant,i,y} is added into B.7.1. of the revised PDD.	☒ Closed
<u>Corrective Action Request 15:</u> Pls. add the parameter, NCV_i into the list in B.7.1. If the IPCC default value is adopted, pls. present the procedure to ensure the appropriateness of the data which would be reviewed annually.	B.7.1.21.	NCV_i is added into B.7.1. of the revised PDD <u>DOE's First response:</u> There are only NCV_d and NCV_c in the PDD. Pls. re-check. <u>Answer:</u> For on-site consumption of fossil fuels, except diesel, no other fossil fuel consumption during the startup and operation. Please see "E_CAR13" Any way, NCV_i is added, which is same as NCV_d. Otherwise, the Net calorie value should be adopted.	☒ Closed

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<u>Corrective Action Request 16:</u> Pls. add the parameter, $EF_{\text{burning,CH}_4,k,y}$, into the list in B.7.1. If the IPCC default value is adopted, pls. present the procedure to ensure the appropriateness of the data that would be reviewed annually.	B.7.1.23.	In fact, this parameter has been included. There is inconsistency in the methodology. The unit for $EF_{\text{burning,CH}_4,k,y}$ is tCH₄/GJ, while the methodology also argued that 0.0027tCH₄/t can be used in case of no accurate information. But the tCH₄/t is the unit of $EF_{\text{burning,CH}_4,k,y}$ times NCV_k. So we use the products of $EF_{\text{burning,CH}_4,k,y}$ and NCV_k in the monitoring table instead EF only. <u>DOE's First response:</u> The methodology provides a value. However, the methodology does not prevent another alternative that calculating by yourself in the coming years. So, a special explanation shall be added in PDD to state that this value will be adopted in the entire crediting period. <u>Answer:</u> It is stated in PDD. This value will be fixed in the entire crediting period.	☒ Closed
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<u>Corrective Action Request 17:</u> The procedure to acquire the yearly quantity of available biomass residues and that are used in the defined region shall be included in the revised PDD. Furthermore, pls. also consider the issue raised from CAR 8.	B.7.1.26.	The quantity of biomass residue acquirable is added into B.7.1. of the revised PDD	☒ Closed
<u>Corrective Action Request 18:</u> Kept at the issue raised from CAR 4, the procedure on measuring the electricity consumed because of the project activity on site shall be added into the PDD. Moreover, the measurement instruments and the relevant calibration process shall also be delivered.	B.7.1.29.	EC_{PJ,y} is added into B.7.1. of the revised PDD <u>DOE's First Response:</u> The figure in B.6.3. is 1231 MWh, different to the one on page 29 in B.6.2.as well as p33 in B.7.1, where 1107.90 MWh are mentioned.	☒ Closed
<u>Corrective Action Request 19:</u> As demonstrated in the PDD, L2 is applied to the project activity at the validation stage. However, in the crediting period, in case of leakages could not be ruled out as per the criteria of L2, the emission due to the leakages shall be considered for the emissions reduction calculation. Hence, the parameter, EF_{CO2, LE}, shall be monitored periodically.	B.7.1.32.	It is added in B.7.1 in the PDD	☒ Closed
<u>Corrective Action Request 20:</u> Besides the issue raised at CAR 3, pls. correct the starting date of the project activity with the starting date of construction.	C.1.1.	The starting date of the project activity is Aug. 10, 2006 (start construction date)	☒ Closed

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<u>Corrective Action Request 21:</u> Referred to the EIA and the approval of the EIA, the smoke and flue gas by-produced by the project activity shall be monitored and shall not exceed the upper limit of the relevant national standards. Pls. add the detailed requirement delivered by the approved EIA into the revised PDD.	D.1.3.	The smoke and flue gas by-produced by the project activity shall be monitored and shall not exceed the upper limit of the relevant national standards: the dust, SO ₂ and NO _x emission will be less than 12.44 tons, 157.63 tons and 255.4 tons per year respectively.(as EIA)	☒ Closed
The local stakeholders have been consulted through a round table discussion on Nov. 22nd, 2006 and a survey via questionnaires has been distributed by the project owner at the beginning of 2007. <u>Corrective Action Request 22:</u> It was found on site that about 100 copies from the questionnaire were sent back to the project owner and an analysis report has been carried out. Whereas, the PDD only gives the information from the survey report which was done while preparing the EIA report in 2006. Hence, the description in the PDD shall be updated with the latest report as per CDM requirements.	E.1.1.	110 questionnaires were distributed and all of them had been returned. The detail information was revised as the latest report.	☒ Closed

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Clarification Request 1: Since the project is a newly installed power plant, all the biomass residues for the project activity were collected at the 4th quarter of last year. In other words, the biomass stored currently has not exceeded the limitation of 1 year. However, the PDD does not provide the information that which approach will be applied to ensure this criterion could be fulfilled in the entire crediting period.	B.2.5.	The straws are directly bought from the farmers at the temporary storage stations and the straws should not be stored for more than one year. Since the project is a newly installed power plant, all biomass residues for the project activity were collected at the 4th quarter of last year. In other words, the biomass stored currently has not exceeded the limitation of 1 year.(see FSR P16) <u>DOE's First response:</u> There was a misunderstanding. We just want to know how could it be guaranteed in the coming years, not only this year. <u>Answer:</u> In the entire crediting period, the biomass stored will not be exceeded the limitation of 1 year. From the view of net calorific value (NCV) of the straw and the usual consideration of economics, the biomass used in the plant will also not stored above 1 year.	☒ Closed
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<u>Clarification Request 2:</u> The boundary of the region where the biomass residues are available for the project activity is not clearly identified. Pls. Furthermore, there's no reliable source to prove the amount of the cotton straws yearly dumped or left to decay or burned in an un-controlled manner which is 0.47 million tons. The figures from the approved feasibility report shall be used.	B.3.8.	The radius of the region is 50 km and added in the revised PDD. The annual cotton straws resources are 0.845 million tons. (FSR, Page 13).	☒ Closed
<u>Clarification Request 3:</u> For the PEFFy calculation, pls. demonstrate the diesel quantity of $FF_{\text{project plant}}$ and $FF_{\text{project site}}$ respectively in the revised PDD and prove the related calculation process to the audit team for review.	B.6.1.2.	The diesel quantity of $FF_{\text{project plant}}$ and $FF_{\text{project site}}$ respectively are demonstrated in the revised PDD and the related calculation process are demonstrated. According to the evidence, the total diesel consumption is only 24t per year. It is from the owner. And will be monitored during operation. Please see "E_CR3"	☒ Closed
<u>Clarification Request 4:</u> Besides the revision required from CAR 7, to monitor the $BF_{k,y}$, the PDD shall also provide a clear description on the measuring equipment, the accuracy of this instrument and the related calibration process to monitor this parameter.	B.7.1.2.	An electrical weight will be used for measuring cotton straw. The calibration procedure, accuracy can be found in the B.7.1 of this PDD.	☒ Closed

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<u>Clarification Request 5</u> The description in the PDD does not provide a clear description on the following information: - the locations of meters are installed and the accuracy of all the meters; - whether these meters would be double checked; - the procedure to measure the electricity supplied from the grid, in case the project activity could not produce electricity by itself. Pls. add the related explanation, including a sketch map, into the revised PDD.	B.7.1.16	The description has been added. Please refer to the B.7.1.	☒ Closed
<u>Clarification Request 6:</u> Until the on site audit the qualified testing institution has not been determined, Pls. deliver the authorized certificate of the institution to the DOE if possible. Furthermore, pls. kindly insert the related testing regulations into the PDD, which includes but are not limited to: - Monitoring frequency: at least every 6 months; - The sample shall be dry biomass; - Equipments used for testing (the accuracy and calibration process of these equipments); - QA/QC procedures.	B.7.1.22	The corresponding information has been added to the PDD. Please refer to B.7.1	☒ Closed

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Annex 2: Information Reference List

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Reference No.	Document or Type of Information																																					
1	Project Design Document for CDM project “Biomass generation project, in Sheyang county, Jiangsu province, P.R. China“, dated on Nov. 28 th , 2006, version 1.0, submitted in Dec., 2006																																					
2	Consolidated methodology for grid-connected electricity generation from biomass residues, version 04																																					
3	Tool for the demonstration and assessment of additionality, version 03																																					
4	Participant list of on-site interview, signed on Mar. 22 nd , 2007																																					
5	On-site interviews and inspection at the office conducted on Mar. 22nd, 2007 by validators of TÜV SÜD. Validation team: <table><tr><td>Sven Kolmetz</td><td>TÜV SÜD Industrie Service GmbH</td></tr><tr><td>Cuiyun Zhang</td><td>Jiangsu TUV Product Service Ltd.</td></tr></table> Interviewed persons: <table><tr><td>Mr. Xiao Bin</td><td>National Bio Energy Co., Ltd.</td><td>CDM Manager</td></tr><tr><td>Mr. Zhou Sheng</td><td>Global Climate Change Institute, Tsinghua University</td><td>Consultant</td></tr><tr><td>Mr. Lu Chuanyi</td><td>Global Climate Change Institute, Tsinghua University</td><td>Consultant Depatment</td></tr><tr><td>Mr. Luo Jun</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>Vice General Manager</td></tr><tr><td>Ms. Geng Haixia</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>CDM Assistant</td></tr><tr><td>Mr. Ding Hai</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>Operation Manager</td></tr><tr><td>Mr. Lu Shuliang</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>Manager</td></tr><tr><td>Mr. Huang Dong</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>Manager</td></tr><tr><td>Mr. Chen Jiu</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>Manager</td></tr><tr><td>Mr. Lu Xinghua</td><td>National Bio Energy Sheyang Co., Ltd.</td><td>Financial Manager</td></tr><tr><td>Mr. Hu Fan</td><td>Eternal International Holoding Group Ltd.</td><td>Consultant</td></tr></table>	Sven Kolmetz	TÜV SÜD Industrie Service GmbH	Cuiyun Zhang	Jiangsu TUV Product Service Ltd.	Mr. Xiao Bin	National Bio Energy Co., Ltd.	CDM Manager	Mr. Zhou Sheng	Global Climate Change Institute, Tsinghua University	Consultant	Mr. Lu Chuanyi	Global Climate Change Institute, Tsinghua University	Consultant Depatment	Mr. Luo Jun	National Bio Energy Sheyang Co., Ltd.	Vice General Manager	Ms. Geng Haixia	National Bio Energy Sheyang Co., Ltd.	CDM Assistant	Mr. Ding Hai	National Bio Energy Sheyang Co., Ltd.	Operation Manager	Mr. Lu Shuliang	National Bio Energy Sheyang Co., Ltd.	Manager	Mr. Huang Dong	National Bio Energy Sheyang Co., Ltd.	Manager	Mr. Chen Jiu	National Bio Energy Sheyang Co., Ltd.	Manager	Mr. Lu Xinghua	National Bio Energy Sheyang Co., Ltd.	Financial Manager	Mr. Hu Fan	Eternal International Holoding Group Ltd.	Consultant
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6	Feasibility report of Biomass generation project in Sheyang county, dated in Mar., 2006, Beijing Huajian Power and Heat Design Institute, submitted on Mar. 22 nd , 2007																																					

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Reference No.	Document or Type of Information
7	Approval of feasibility report of Biomass generation project in Sheyang county, Jiangsu Development and Reform Commission, submitted on Mar. 22 nd , 2007
8	Approval of construction, dated on Sept. 8 th , 2006, Jiangsu Construction Bureau, submitted on Mar. 22 nd , 2007
9	Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects, State Power Corporation of China, submitted Mar. 22 nd , 2007
10	EPC contract for the construction and installation, dated in April, 2006, Shenzhen Shandong Nucleus Engineering Company, submitted on Mar. 22 nd , 2007
11	Purchasing contract of boiler, dated on Dec. 26 th , 2005, National Bio Energy Co., Ltd. and Longji Power Co., Ltd., submitted on Mar. 22 nd , 2007
12	Purchasing contract of turbine and generator, dated in Mar., 2006, National Bio Energy Co., Ltd. and Wuhan Turbine Co., Ltd., submitted on Mar. 22 nd , 2007
13	Design document of boiler, dated in Feb., 2006, National Bio Energy Co., Ltd., submitted on Mar. 22 nd , 2007
14	Report of the water pressure testing, dated on Jan. 18 th , 2007, national Bio Energy Co., Ltd., submitted on Mar. 22 nd , 2007
15	Connection system to the grid, National Bio Energy Sheyang Co., Ltd., submitted on Mar. 22 nd , 2007
16	Contracts of purchasing and transportation of cotton straw, National Bio Energy Sheyang Co., Ltd., submitted on Mar. 22 nd , 2007
17	National Renewable Law, effect on Jan. 1 st , 2006, submitted on Mar. 22 nd , 2007
18	Released notice on the commercial loan, China Construction Bank, submitted on Mar. 22 nd , 2007
19	Training record in 2006, National Bio Energy Sheyang Co., Ltd., submitted on Mar. 22 nd , 2007
20	Average electricity tariff of Hebei Grid, submitted on Mar. 22 nd , 2007
21	China Electric Power Yearbook 2003-2005, submitted on Mar. 22 nd , 2007
22	China Energy Statistical Yearbook 2000-2005, submitted on Mar. 22 nd , 2007
23	IRR calculation spreadsheet, Global Climate Change Institute, Tsinghua University, submitted on Mar. 22 nd , 2007
24	EIA of Biomass generation project, in Sheyang county, dated in Mar., 2006, Jiangsu Environmental Science Institute., submitted on

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Reference No.	Document or Type of Information
	Mar. 22nd, 2007
25	Approval of EIA, date on May 28 th , 2006, Jiangsu Environment Protection Bureau, submitted on Mar. 22nd, 2007
26	Memo of round table meeting, National Bio Energy Sheyang Co., Ltd., submitted on Mar. 22 nd , 2007
27	Questionnaire of local stakeholder survey, National Bio Energy Sheyang Co., Ltd., submitted on Mar. 22 nd , 2007
28	Analysis report of comments from questionnaires, National Bio Energy Sheyang Co., Ltd., submitted on Mar. 22 nd , 2007
29	Project Design Document for CDM project "Biomass generation project, in Sheyang county, Jiangsu province, P.R. China", dated on July. 20th, 2006, version 3.3, submitted in July, 2007