

VERIFICATION REPORT FOR ANHUI GUZHEN BIOMASS GENERATION PROJECT



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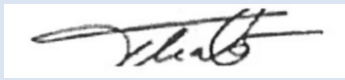
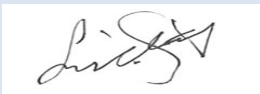
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Project Title	Anhui Guzhen Biomass Generation Project
Version	Version 02.2
Report ID	182

Report Title	Verification report for Anhui Guzhen Biomass Generation Project
Client	National Guzhen Bio Energy Co., Ltd.
Pages	68
Date of Issue	23-07-2013
Prepared By	Re-Consult Ltd.
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Summary:

re-consult Ltd. has been appointed by “National Guzhen Bio Energy Co., Ltd.” to perform a gap validation and verification of the “Anhui Guzhen Biomass Generation Project” with regard to the requirements of VCS (Version 3.3), ACM0018 (Version 02.0).

The proposed project- “Anhui Guzhen Biomass Generation Project” was registered as a CDM project on 07/11/2012, and the UNFCCC reference number is 8008. This gap validation of VCS PD template cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 is annexed to cover all the requirements set out in the VCS (version 3.3) standards for projects validation together with the validated PDD (version 2.0) and CDM validation report (version 01).

The verification has been executed in the following steps so far:

- - Desk review of VCS monitoring report, Version 1.0, 28/05/2013
- - Registered PDD (version 2.0, 21/09/2012), validation report by PJR (21/10/2012), applied methodology of ACM0018, Version 02.0.0
- - On-site visit with stakeholder interviews (14/06/2013-16/06/2013)
- - Issue draft verification report with corrective action requests (CARs) and clarification requests (CLs)
- - Desk review of revised VCS monitoring report, version 2.0, 25/06/2013
- - Review of proposed corrections and clarifications
- - Issue of the final verification report

During the verification, 2 Corrective Action Requests and 9 Clarification Requests were raised, all of which were closed out before the issuance of this verification report. No FAR was raised. In summary, it is re-consult’s opinion that the project activity “Anhui Guzhen Biomass Generation Project” in People’s Republic of China, is in compliance with the monitoring plan described in the registered PDD. The GHG emission reductions are calculated correctly as per the applied methodology and the emission reductions given in the monitoring report version 2.2, dated 23/07/2013 are fairly stated. Therefore, re-consult Ltd. confirms the implementation of the Project resulted in 242,990 tCO₂e of emission reductions during the verification period 03/01/2011 to 06/11/2012.

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1 INTRODUCTION

1.1 Objective

re-consult Ltd. has been appointed by “National Guzhen Bio Energy Co., Ltd.” to perform the gap validation and verification of the “Anhui Guzhen Biomass Generation Project”. The gap validation of the project is to determine whether the CDM project, “Anhui Guzhen Biomass Generation Project”, meet all the criteria defined under VCS (version 3.3). The objective of this verification activity is to assess, with objective evidence:

- if the reductions generated by the project are in line with the VCS (version 3.3) and the information provided by the project participants contains all the necessary information to evidence the project’s compliance with all criteria in the VCS.
- if the final version of monitoring report conforms with the requirements of the monitoring plan of the registered PDD and the approved methodology.
- if the project activity conforms with the monitoring report and the registered PDD, and
- if the data reported in the monitoring report are complete and transparent.

1.2 Scope and Criteria

The scope of the verification is the independent and objective review of the monitored GHG reductions. The gap validation and verification activity is based on the PD, Monitoring report, the validated CDM PDD and validation report, monitoring methodology, and the supporting documents and information, combined with the on-site assessment. Those documents have been reviewed and verified against VCS (version 3.3) requirements, UNFCCC rules and associated interpretations.

The only purpose of the verification and certification is its usage during the issuance process as part of the VCS project cycle. Therefore, re-consult can’t be held liable by any party for decisions made or not made based on the verification and certification opinion, which will go beyond that purpose.

1.3 Level of Assurance

The validation and verification of the project is assured reasonable by the verification team on the basis of documentation review, on-site assessment & interview and background investigation on the internet.

1.4 Summary Description of the Project

The project is a newly-built biomass project with total installed capacity of 30MW. It is located in Economic Development Zone, 8 km to the downtown of Guzhen County, Bengbu City, Anhui Province, P.R. China.

The purpose of the project is to utilize available biomass residue to generate electricity through 1 set of 130t/h boiler and 1 set of 30MW steam turbine generator. The annual electricity supply of the Project is expected to be 186,900 MWh, which will be delivered to East China Power Grid. The exported electricity displaces electricity generation from fossil fuel fired power plants in the East China Power Grid (ECPG) and thus reduces GHG emissions.

Prior to the Project, the biomass residues used in the Project are dumped or left to decay under mainly aerobic conditions. The electricity supplied by the Project is supplied by East China Power Grid, which generates CO₂ emissions as it is mainly composed of traditional fossil fuel fired power plants. These are also the baseline scenarios of the Project.

The project has been registered as a CDM project (CDM Registration No. 8008) on 07/11/2012 and general description of the project can be referred to the registered PDD/D07/. The Specific clauses 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template have been described in the PD/D11/ and assessed in section 2 below.

2 VALIDATION PROCESS, FINDINGS AND CONCLUSION

2.1 Validation Process

Method and Criteria:

The validation was performed in two stages: document review and on-site assessment (including interview and inspection). The gap validation was in accordance with applicable criteria listed in section 1.2 of this report and 1 CAR was found by the validation team during this gap validation.

Document Review:

The basis for the gap validation activity is the PD version 1.0, dated 28/05/2013. This PD was revised once due to the raised CARs and CLs, version 2.1 dated 17/07/2013 being the final version. The PD was assessed against VCS (version 3.3).

The list of the documents which were reviewed is given in the Table 3-1 under section 3 which shows the total documents reviewed during the validation as well as verification process.

Interviews:

During the validation period follow-up interviews were realized by the validation team to further analyze the correctness and accurateness of the information provided.

The list of people who were interviewed during the validation period is given in the Table 2-1 below:

Table 2-1: List of persons interviewed

Reference Number	Means of Interview ¹	Full Name	Title	Organization
I01	SV	Hui ZHAO	Director of CDM center	National Bio Energy Co., Ltd. ²
I02	SV	Zheng LI	Project Manager	National Bio Energy Co., Ltd.
I03	SV	Wenshi YAO	Project Manager	National Bio Energy Co., Ltd.
I04	SV	Yujie LU	CDM Administrator	National Guzhen Bio Energy Co., Ltd.
I05	SV	Xuming CHEN	General Manager	National Guzhen Bio Energy Co., Ltd.

Site Inspections: As a part of the validation activities a site visit was performed to the project activity site, details of which can be seen in the Table 2-2 below:

Table 2-2: Site visit details

1 SV: Site visit; T: Telephone; E: E-mail

2 National Bio Energy Co., Ltd is the parent company of National Guzhen Bio Energy Co., Ltd. And National Bio Energy Co., Ltd owns all the shares of National Guzhen Bio Energy Co., Ltd.

Date	14/06/2013-16/06/2013	
Location	Guzhen County, Anhui Province, P.R.China	
Participant	Company Name	Role in the Organization / Role in the Site Visit
Hui ZHAO	National Bio Energy Co., Ltd.	Director of CDM center
Zheng LI	National Bio Energy Co., Ltd.	Project Manager
Wenshi YAO	National Bio Energy Co., Ltd.	Project Manager
Yujie LU	National Guzhen Bio Energy Co., Ltd.	CDM Administrator
Xuming CHEN	National Guzhen Bio Energy Co., Ltd.	General Manager
Points Verified	Source of Information	
<ul style="list-style-type: none"> -Project background information; - General aspects of the project; - Project design, Commissioning and implementation; - Technical equipment and operation of the project - Performance of the project - Involved personnel and responsibilities - Training and practice of the operational personnel 	<ul style="list-style-type: none"> Mr. Xuming CHEN Mr. Wenshi YAO Registered PDD/D07/ 72+24 hours commission acceptance check report/D22/ Commission quality supervising check report/D23/ Approval for the project issued by Anhui Province Energy Bureau (Yuan Neng Yuan Xin Neng[2010]No.9)/D24/ EIA approval(Huan Ping Han[2009]No.523)/D25/ Construction contract for the project/D26/ Purchase contract for main equipment/D27/D28/D29/ 	
<ul style="list-style-type: none"> -Desk review findings; - Editorial aspects of MR and supplement PD - Details of emission reduction calculation. 	<ul style="list-style-type: none"> Mr. Hui ZHAO Mr. Zheng LI Ms. Yujie LU 	

Resolution of Any Material Discrepancy:

In line with re-consult internal terminology and VCS version 3.3, the team reports the non-conformities in the forms of Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs). When and for which type of non-conformities CARs, CLs and FARs are issued are explained below.

- The Validation team raises a **CAR** if one of the following occurs:
 - The project participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions
 - The CDM and/or VCS requirements have not been met
 - There is a risk that emission reductions cannot be monitored or calculated.

- The Validation team raises a **CL** if information is insufficient or not clear or not transparent enough to determine whether the applicable CDM and/or VCS requirements have been met.
- The Validation team raises a **FAR** during validation to highlight issues related to project implementation that require review during the first verification of the project activity.

According to these principles total of 1 CAR was raised during gap validation.

The appointment process of the validation team takes into account the technical area(s), sectoral scope(s), and relevant host country experience required amongst team members for the accurate and thorough assessment of the project design. The relevant VCS validation and previous ITR experiences are also assessed during the selection of the team members and Independent Technical Reviewer (ITR), respectively.

The validation team members and ITR are given in Table 2-3 below:

Table 2-3: Validation team and ITR details (It is also the verification team)

Name	Role	Host Country Experience	Scope Coverage	Technical Expertise	Financial Expertise	Involv.
Jindong LIANG	Team Leader	☒	☒	☒	☒	DR,R
Dan LI	Trainee Team Leader	☒	☒	☒	☒	DR,SV,R
Linwei MA	Technical Expert	☒	☒	☒	☐	DR,SV
Johann THALER	ITR	☒	☒	☒	☒	ITR

Please list all the team members and ITR.

* Explanations for the abbreviations used for involvement types are as follows:

- A : Administrative
- DR : Desk Review
- SV : Site Visit
- R : Reporting
- ITR : Independent Technical Review

2.2 Validation Findings

Gap Validation

According to the requirement of VCS version 3.3/D01/, VCS recognizes the CDM as a GHG Program that meets its VCU Verification Criteria, this verification report thus only address VCS specific and unique criteria in terms of project design, applicability to the adopted methodology, the project description, monitoring report and additionality that have not been so far addressed in the Validation Report as per CDM requirement.

The proposed project was registered as a CDM project on 07/11/2012 and the UNFCCC reference number is 8008/D60/. As per the requirements defined under VCS (version 3.3)/D01/, especially specified in section 3.11.8 of VCS (version 3.3), the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description

Template (version 03.1)/D09/ shall be subject to further validation. The gap validation of these sections is stated as follows:

Cover Page

The cover page is provided as per the VCS PD template. The project title has been validated to be the same as the registered CDM project. The version, date of issue, the entity preparing the relevant information and the contact information has been validated to be correct.

1.2 Sectoral Scope and Project Type

Based on the registered PDD/D07/, the sectoral scope is: Energy Industries (renewable sources); Project Type: Grid-connected renewable power generation (biomass power project); This is verified by the validation team during onsite inspection.

1.3 Project Proponent

The project proponent identified is National Guzhen Bio Energy Co.,Ltd (project owner), which is consistent with registered PDD/D07/ and the business license/D14/.

1.5 Project Start Date

According to the 72+24 hours commission acceptance check report/D22/ as well as Commission quality supervising check report/D23/, the project was operated from 30/12/2010 to 02/01/2011 on trial, and then was operated as normal on 03/01/2011. Therefore, the project started commercial operation is recognized as the first activity began to reducing and removing GHG emissions. The first operational date 03/01/2011 was identified as the project start date, which is in line with VCS Standard Version 3.3.

1.6 Project Crediting Period

The project was registered as a CDM project by UNFCCC on 07/11/2012, which is a seven year renewable project. The emission reductions occur prior to the registration of the project as CDM project activity which cannot be claimed as Certified Emission Reductions (CERs) are thus claimed as Voluntary Carbon Units (VCU) under VCS program. Therefore, the project crediting period was identified as the period between the project operational starting date and day before CDM registration from 03/01/2011 to 06/11/2012.

1.7 Project Scale and Estimated GHG Emission Reductions or Removals

The validation team has reviewed the PDD/D07/ and the validation report/D08/ under CDM and confirms the estimated calculation of ER is 132,072 tonnes of CO₂e annually and reasonable, which is less than 300,000 tonnes of CO₂e annually. So the project is clarified as Projects scale but not large projects scale.

CAR-1 was raised regarding to scale issue and finally closed, and for details please refer to table 2 in Annex I of this report.

1.9 Project Location

The proposed project is located in the Economic Development Zone of Guzhen County, Bengbu City, Anhui Province, P.R. China and is operated by National Guzhen Bio Energy Co., Ltd.. The geographical coordinates of the center of plant is 117°20'13" east longitude, 33°13'08"north latitude. The validation team performed an on-site visit to the project from 14/06/2013-16/06/2013

and confirmed that the geographic location of the Project consists with the registered PDD/D07/ and the VCS monitoring report (hereafter referred to as MR) /D12/D66/.

1.10 Conditions Prior to Project Initiation

According to the registered PDD/D07/, the conditions existing prior to project initiation is the same as baseline scenario, which is the biomass residues are dumped or left to decay mainly under aerobic conditions and East China Power Grid (ECPG) providing the same amount of electricity as the project activity.

1.12.1 Right of Use

According to the registered PDD/D07/ and the MR/D12/D66/, the project owner is National Guzhen Bio Energy Co., Ltd., who has the original right to claim emission reductions. The ownership of the project activity has been proved by the business license/D14/ and approval of the project issued by Anhui Province Energy Bureau on 17/03/2010/D24/, Environmental Impact Assessment (EIA) approval/D25/ issued by Environment Protection Department of Anhui Province, Construction contract for the project/D26/, Purchase contract for Generator/Boiler/Turbine/D27/D28/D29/, PPA signed between the project owner and the Anhui Electric Power Corporation /D20/, as well as Grid connection and dispatching agreement, signed by Bengbu Power Supply Bureau and Project owner/D21/. The validation team confirms that the project's design and implementation has been subject to relevant national legislation in China, which also meets the standard for proof of right of use set forth in the VCS version 3.3, § 3.11.1.

1.12.2 Emissions Trading Programs and Other Binding Limits

The project activity has been registered as a CDM Project on 07/11/2012 (CDM Registration No. 8008) and the first crediting period begins from 16/11/2012. For details, please review <http://cdm.unfccc.int/Projects/DB/PJR%20CDM1351854815.15/view>.

The concerned monitoring period pertaining to this verification is 03/01/2011 to 06/11/2012, which is not included in an emissions trading program, and does not take place in a jurisdiction or sector in which binding limits are established on GHG emissions. The proposed project does not reduce GHG emissions from activities that participate in an emissions trading program other than CDM or VCS (prior to CDM), so the section is not applicable.

1.12.3 Participation under Other GHG Programs

The project was registered as a CDM project on 07/11/2012(CDM Registration No. 8008). However, only emission reduction achieved before CDM crediting start date were claimed as VCUs.

1.12.4 Other Forms of Environmental Credit

The validation team confirms that there is no Chinese domestic scheme for renewable energy certificates in existence. In addition, as confirmed with the project representative Mr. Xuming Chen /I05/, the project neither has nor intends to generate any other form of GHG-related environmental credit.

1.13 Additional Information Relevant to the Project

Eligibility Criteria

N.A. This project is not grouped projects.

Leakage Management

By reviewing registered PDD/D07/, the leakage of the project is zero as per ACM0018 (ver 2.0.0).

Commercially Sensitive Information

The validation team has not found any commercially sensitive information excluded from the public version of the project description.

Further Information

The validation team has not found other information may have a bearing on the eligibility of the project, the net GHG emission reductions or removals, or the quantification of the project's net GHG emission reductions or removals.

Methodology Deviations

N.A.

Project Description Deviations

N.A.

New Project Activity Instances

N.A.

2.3 Validation Conclusion

re-consult Ltd. has performed the validation of the “Anhui Guzhen Biomass Generation Project” in “P.R. China”. The validation was performed on the basis of VCS criteria, UNFCCC criteria for the CDM, VCS and Host Party criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The validation has been performed by a validation team consisting of “Mr. Jindong LIANG, Ms. Dan LI, Mr. Linwei MA” and Mr. Johann THALER as an ITR, and the project activity was checked against the applicable rules and regulations of VCS version 3.3.

As per the section 3.11.8 of VCS version 3.3, only gap validation is required. A limited validation was performed covering the cover page and sections 1.2, 1.3, 1.5, 1.6, 1.7, 1.9, 1.10, 1.12.1, 1.12.2, 1.12.3, 1.12.4 and 1.13 of the VCS Project Description Template (version 03.1) and no any discrepancy is identified in the course of the gap validation.

As a result of the gap validation, the validation team confirms that the project follows the VCS (version 3.3) standards.



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Team Leader
23.07.2013



Johann THALER
ITR
23.07.2013



Anil SÖYLER
Certification Manager
23.07.2013

3 VERIFICATION PROCESS

3.1 Method and Criteria

The objective of this verification activity is to assess, with objective evidence:

- if the monitoring report conforms with the requirements of the monitoring plan of the registered CDM PDD and the approved methodology
- if the project activity conforms with the VCS monitoring report and the registered PDD, and
- if the data reported in the VCS monitoring report are complete and transparent.

The scope of the verification is the independent and objective review of the monitored GHG reductions.

The verification consists of the following steps:

- a desk review of the registered CDM PDD/D07/, VCS PD/D11/ the VCS MR/D12/, and supporting documents submitted by PPs;
- on-site assessment and follow-up interviews with personnel of the PPs;
- raising CARs, CLs, FARs when appropriate;
- resolution CARs/CLs and issuing the final verification report;
- the final verification report including the verification findings underwent a technical review before being submitted to the PPs and requesting issuance of the VCU.

3.2 Document Review

The basis for the verification activity is the VCS monitoring report version 1.0. This monitoring report was revised once due to the issued CAR and CLs, version 2.2 dated 23/07/2013 being the final version. The monitoring report and the monitoring activities were assessed against the registered CDM PDD, version 02.0 dated 21/09/2012, the approved methodology ACM0018 version 2.0.0, the relevant VCS rules and regulations, CDM rules and the final CDM validation report.

The following actions were involved in the desk review:

- A review of the data and information presented to verify their completeness
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions

The list of the documents which were reviewed during the verification period is given in the Table 3-1 below:

Table 3-1: List of documents reviewed (including the documents reviewed during validation and verification)

Document Number	Document Name	Version	Date (dd/mm/yyyy)
D01	VCS Standard	3.3	04/10/2012
D02	CDM validation and verification standard	3.0	23/11/2012
D03	Approved consolidated baseline and	02.0.0	02/03/2012

Document Number	Document Name	Version	Date (dd/mm/yyyy)
	monitoring methodology ACM0018: Consolidated methodology for electricity generation from biomass residues in power-only plants		
D04	Tool to calculate project or leakage CO ₂ emissions from fossil fuel combustion	02	02/08/2008
D05	Tool to calculate the emission factor for an electricity system	2.2.1	29/09/2011
D06	Project and leakage emissions from road transportation of freight	1.0.0	29/09/2011
D07	CDM Project Design Document (PDD) (Registered)	02.0	21/09/2012
D08	CDM Validation Report	01	21/10/2012
D09	VCS Project description Template	3.1	-
D10	VCS Monitoring Report Template	3.2	-
D11	VCS Project Description (PD)	1.0	28/05/2013
D12	VCS Monitoring Report (MR)	1.0	28/05/2013
D13	Emission Reductions Calculation Spreadsheet	1.0	28/05/2013
D14	Business License of National Guzhen Bio Energy Co., Ltd. issued by Guzhen County Administration for Industry and Commerce	-	11/01/2013
D15	CDM Monitoring management regulation issued by National Bio Energy Co., Ltd.	-	-
D16	CDM Project Training Record	-	2011-2012
D17	Nameplate for the boiler	-	-
D18	Nameplate for the turbine	-	-
D19	Nameplate for the generator	-	-
D20	Power purchase agreement, signed by Anhui Electric Power Corporation and PO	-	29/10/2010
D21	Grid connection and dispatching agreement, signed by Bengbu Power Supply Bureau and PO	-	08/2010
D22	72+24 hours commission acceptance check report	-	03/01/2011
D23	Commission quality supervising check report	-	03/02/2011
D24	Approval for the project issued by Anhui Province Energy Bureau (Yuan Neng Yuan Xin Neng[2010]No.9)	-	17/03/2010
D25	EIA approval for the project issued by Anhui Province Environmental Protection Department (Huan Ping Han[2009]No.523)	-	11/12/2009
D26	Construction contract for the project, signed by Sepco 1 Electric Power Construction Corporation and PO	-	28/03/2010
D27	Purchase contract for Generator, signed by Shandong Jinan Power Equipment Factory and PO	-	03/04/2010
D28	Purchase contract for Boiler, signed by Longji	-	02/04/2010

Document Number	Document Name	Version	Date (dd/mm/yyyy)
	Power Co.,Ltd and PO		
D29	Purchase contract for Turbine, signed by Qingdao Jieneng Power Station and PO	-	03/04/2010
D30	Biomass purchase statement sheets	-	2011 and 2012
D31	Biomass residues purchase statistic sheets	-	2011 and 2012
D32	Biomass consuming statistic sheets	-	2011 and 2012
D33	Statement regarding the available and utilized biomass output of Guzhen County 2011 and 2012 issued by Guzhen County Development and Reform Commission	-	17/02/2012
D34	Diesel consumption record	-	2011- 2012
D35	Diesel consumption statistic sheets	-	2011-2012
D36	The proof of the initial and ending meter's reading for the purchased electricity issued by Anhui Power Guzhen power supply Co.,Ltd	-	10/03/2013
D37	The proof of the initial and ending meter's reading for the exported electricity issued by Anhui Power Guzhen power supply Co.,Ltd	-	28/02/2013
D38	Transition note of monthly exported electricity	-	2011-2012
D39	Invoices of the exported electricity	-	2011-2012
D40	Transition note of monthly purchased grid electricity	-	2011-2012
D41	Statistic sheets of exported and imported electricity	-	2011-2012
D42	Calibration certificate of the electronic car weigher issued by Guzhen County Quality Supervision Technology Institute	-	16/03/2013 17/09/2012 18/03/2012 19/09/2011 20/03/2011 21/09/2010
D43	Calibration certificate of the electronic meters issued by Anhui Electric Power Measurement & Testing Center	-	01/11/2012 02/11/2011 03/11/2010
D44	Calibration certificate of the diesel filling machine (flow meter) issued by Guzhen County Quality Supervision Technology Institute	-	19/09/2012 20/09/2011 21/09/2010
D45	Calibration certificate of the electronic weight belt issued by Guzhen County Quality Supervision Technology Institute	-	19/09/2012 20/09/2011 21/09/2010
D46	Calibration certificate of the moisture testing equipment issued by Guzhen County Quality Supervision Technology Institute	-	19/09/2012 20/09/2011 21/09/2010
D47	Certificate of Metrological Authorization for Anhui Electric Power Measurement & Testing Center	-	Valid to 30/11/2012
D48	Certificate of Guzhen County Quality	-	Valid to

Document Number	Document Name	Version	Date (dd/mm/yyyy)
	Supervision Technology Institute		28/02/2015
D49	Picture of electric meters taken during onsite visit	-	06/2013
D50	Nameplate of the electric car weigher	-	-
D51	Picture of moisture testing equipment taken during onsite visit	-	06/2013
D52	Environmental protection acceptance check monitoring report	-	01/2012
D53	Operation log of the power plant	-	2011-2012
D54	Operation indicator statistic sheet	-	2011-2012
D55	Operation daily record of the power plant	-	2011-2012
D56	2011 Baseline Emission Factors for Regional Power Grid in China	-	20/10/2011
D57	FSR of the project	-	08/2009
D58	2006 IPCC Guidelines on National GHG Inventories	-	2006
D59	The nameplate of the moisture analyser	-	-
D60	Registered page for the project on UNFCCC website: http://cdm.unfccc.int/Projects/DB/PJR%20CDM1351854815.15/view	-	07/11/2012
D61	The invoice of diesel purchased	-	2011-2012
D62	Operating procedure for Moisture analyzer	-	-
D63	Nameplate of the weight belt	-	-
D64	Stock Records of Diesel	-	2011-2012
D65	VCS Project Description (PD)	2.1	17/07/2013
D66	VCS Monitoring Report (MR)	2.2	23/07/2013
D67	Emission Reductions Calculation Spreadsheet	2.2	23/07/2013
D68	The source of the density of diesel: Opportunities for the CDM in the energy sector the people's republic of China issued by Asian Development Bank. http://www2.adb.org/Documents/TARs/PRC/tar-prc-3840-fr-app-d.pdf	-	03/2004

Interviews

During the verification period follow-up interviews were performed by the verification team to further analyze the correctness and accurateness of the information provided.

The list of people who were interviewed during the verification period is given in the Table 3-2 below:

Table 3-2: List of persons interviewed

Reference Number	Means of Interview ³	Full Name	Title	Organization
I01	SV	Hui ZHAO	Director of CDM center	National Bio Energy Co., Ltd.
I02	SV	Zheng LI	Project Manager	National Bio Energy Co., Ltd.
I03	SV	Wenshi YAO	Project Manager	National Bio Energy Co., Ltd.
I04	SV	Yujie LU	CDM Administrator	National Guzhen Bio Energy Co., Ltd.
I05	SV	Xuming CHEN	General Manager	National Guzhen Bio Energy Co., Ltd.

3.3 Site Inspections

As a part of the verification activities a site visit was performed to the project activity site, details of which can be seen in the below Table 3-3 below:

Table 3-3: Site visit details

Date	14/06/2013-16/06/2013	
Location	Guzhen County, Anhui Province, P.R.China	
Participant	Company Name	Role in the Organization / Role in the Site Visit
Hui ZHAO	National Bio Energy Co., Ltd.	Director of CDM center
Zheng LI	National Bio Energy Co., Ltd.	Project Manager
Wenshi YAO	National Bio Energy Co., Ltd.	Project Manager
Yujie LU	National Guzhen Bio Energy Co., Ltd.	CDM Administrator
Xuming CHEN	National Guzhen Bio Energy Co., Ltd.	General Manager
Points Verified	Source of Information	
Implementation and operation of the proposed VCS project activity as per the registered PDD	Mr. Wenshi YAO Ms. Yujie LU	
Review of information flows for generating, aggregating and reporting the monitoring parameters	Onsite inspection and reviewing the following documents: Biomass purchase statement sheets/D30/ Biomass residues purchase statistic sheets/D31/ Biomass consuming statistic sheets/D32/	
Interviews with relevant personnel to confirm that the operational and data collection procedures are implemented in accordance	Mr. Wenshi YAO Ms. Yujie LU	

³ SV: Site visit; T: Telephone; E: E-mail

with the monitoring plan in the PDD	Mr. Hui ZHAO
Cross-check between information provided in the monitoring report and data from other sources such as plant log books, inventories, purchase records or similar data sources	<p>Biomass purchase statement sheets/D30/ Biomass residues purchase statistic sheets/D31/ Biomass consuming statistic sheets/D32/ The invoice of diesel purchased/D61/ The stock record of the diesel/D64/ Statement regarding the available and utilized biomass output of Guzhen County/D33/ Diesel consumption record/D34/ Diesel consumption statistic sheets/D35/ The proof of the initial and ending meter's reading for the purchased electricity issued by Anhui Power Guzhen power supply Co.,Ltd/D36/ The proof of the initial and ending meter's reading for the exported electricity issued by Anhui Power Guzhen power supply Co.,Ltd/D37/ Transition note of monthly exported electricity/D38/ Invoices of the exported electricity /D39/ Transition note of monthly on purchased grid electricity/D40/ Statistic sheets of exported and imported electricity/D41/</p>
Check of the monitoring equipment including calibration performance and observations of monitoring practices against the requirements of the PDD and the selected methodology	<p>Onsite inspection as well as reviewing following documents: Calibration certificate of the electronic car weigher issued by Guzhen County Quality Supervision Technology Institute/D42/ Calibration certificate of the electronic meters issued by Anhui Electric Power Measurement & Testing Center/D43/ Calibration certificate of the diesel filling machine issued by Guzhen County Quality Supervision Technology Institute/D44/ Calibration certificate of the electronic weight belt issued by Guzhen County Quality Supervision Technology Institute/D45/ Calibration certificate of the moisture testing equipment issued by Guzhen County Quality Supervision Technology Institute/D46/ Certificate of Metrological Authorization for Anhui Electric Power Measurement & Testing Center/D47/ Certificate of Guzhen County Quality Supervision Technology Institute/D48/</p>
Review of calculations and assumptions made in determining the GHG data and emission reductions	<p>Emission Reductions Calculation Spreadsheet/D13/ Biomass residues purchase statistic sheets/D31/ Biomass consuming statistic sheets/D32/</p>

	<p>Diesel consumption statistic sheets/D35/ The proof of the initial and ending meter's reading for the purchased electricity issued by Anhui Power Guzhen power supply Co.,Ltd/D36/ The proof of the initial and ending meter's reading for the exported electricity issued by Anhui Power Guzhen power supply Co.,Ltd/D37/ Statistic sheets of exported and imported electricity/D41/</p>
<p>Identification of quality control and quality assurance procedures in place to prevent or identify and correct any errors or omissions in the reported monitoring parameters</p>	<p>Mr. Zheng LI Ms. Yujie LU Mr. Xuming CHEN CDM Monitoring management regulation issued by National Bio Energy Co., Ltd./D15/ CDM Project Training Record/D16/</p>

3.4 Resolution of Any Material Discrepancy

The verification of this VCS project activity includes the following steps:

- Assessment of the conformity of the actual project activity and its operation with the registered PDD dated 21/09/2012 version 02.0.
- A site visit was conducted on 14/06/2013-16/06/2013 to assess that all physical features of the project activity proposed in the registered PDD are in place and that the project participants has operated the project activity as per the registered PDD.
- Assessment of the compliance of the monitoring plan with the monitoring methodology ACM0018 version 02.0.0
- Assessment of the compliance of monitoring with the monitoring plan
- Assessment of data and calculation of greenhouse gas emission reductions
- Issuance of the verification report
- Independent technical review
- Approval of the verification report and request of issuance

The Verification Protocol is used for the assessment of each requirement during the execution of verification activities and is given in Annex-1 of this verification report.

The Verification Protocol consists of two tables:

- Table 1 (Monitoring Report and VCS verification requirements) and
- Table 2 (Resolution of Corrective Action, Forward Action and Clarification Requests)

The usage description of Table-1 in Verification Protocol is explained in Table 3-4 below:

Table 3-4: Explanation about Table-1 in Verification Protocol

Question	Reference	MoV*	Findings, comments, references and document sources	Draft & Final Conclusion
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The requirements related with the monitoring report and verification	Gives reference to the legislation or documents where the relevant requirement is found	Explains how conformance with question is investigated. Examples of means of verification are Document Review (DR), Interview (I) and Not Applicable (NA)	Is used to elaborate and discuss the question and/or conformance to the question by giving related references and document sources based on which the finding is issued or evidence is checked	Either acceptable based on the evidence provided (OK), non-compliance with the requirement (CAR), further clarification (CL) due to insufficient, unclear or not transparent information, forward action request (FAR) that needs to be solved during the next periodic verification
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The usage description of Table-2 in Verification Protocol is explained in Table 3-5 below:

Table 3-5: Explanation about Table-2 in Verification Protocol

Draft Report Clarifications, Forward Action and Corrective Action Requests by Verification Team	Ref. to Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
The all CL, FAR and CARs determined during the draft verification report should be listed here	Gives reference to the checklist questions in Table-1 of Verification Protocol	Is used to summarize the responses by project participants regarding the non-conformities	Is used to summarize the responses by verification and their conclusions

The Verification Protocol is fulfilled by the verification team in line with the descriptions above and all the CARs, CLs and FARs are listed in a transparent and clear manner.

During the verification period, a Verification Protocol which is attached in Annex 1 to this verification report was used to submit the findings to the project participants.

In line with re-consult internal terminology and VCS version 3.3, the team reports the non-conformities in the forms of Corrective Action Requests (CARs), Clarification Requests (CLs) and Forward Action Requests (FARs). When and for which type of non-conformities CARs, CLs and FARs are issued are explained below:

- The verification team raises a CAR if one of the following occurs:

- Non-conformities with the monitoring plan or methodology are found in the monitoring and reporting, or if the evidence provided to prove conformity is insufficient;
 - Mistakes have been made in applying assumptions, data or calculations of emission reductions that will impair the estimate of emission reductions;
 - Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.
- The verification team raises a CL if information is insufficient or not transparent not clear enough to determine whether the applicable CDM and/or VCS requirements have been met.
 - The verification team raises a FAR during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

According to these principles total of 1 CAR and 9 CLs were issued during the verification and all of which are listed in the Verification Protocol (totally 2 CARs and 9 CLs were issued during the gap validation and verification, thereinto, 1 CAR was issued during the gap validation).

The appointment process of the verification team takes into account the technical area(s), sectoral scope(s), and relevant host country experience required amongst team members for the verification of the emission reductions achieved by the project activity in the relevant monitoring period for this verification. The relevant VCS verification and previous ITR experiences are also assessed during the selection of the team members and Independent Technical Reviewer (ITR), respectively. The verification team and ITR are assigned to this verification activity taking all the above factors into consideration and as a result of the contract review process.

The verification team and ITR details are given in Table 2-6 in previous section of this report.

As a final step of verification, the final documentation including the verification report and its annexes have to undergo an internal quality control by re-consult. This quality control is also referred to as Independent Technical Review process.

The Independent Technical Review is performed by another Team Leader who hasn't involved in the verification activities of this project activity. When the Team Leader finalizes the Verification Report, the report is sent to Independent Technical Reviewer, at this stage not only the report but all the supporting documents like emission factor calculations, additionality justifications, relevant excel sheets etc. are reviewed.

Further CLs and CARs can be issued by the Independent Technical Reviewer during this review, to cover all the points that may need further clarification.

After all the CLs and CARs are closed, the verification report is reviewed and approved by the Team Leader, ITR and the Certification Manager/General Manager, and the request of issuance is submitted to the VCS Organization in line with the positive verification opinion and along with the all relevant documents.

4 VERIFICATION FINDINGS

4.1 Project Implementation Status

Implementation Status of the Project Activity

The verification team has performed an on-site visit to verify the real implementation of the project against the description in the registered CDM PDD.

During the onsite visit, the verification team found that the proposed project processed rice straw, maize straw, peanut straw and wood residues to generate electricity. One 130t/h boiler and one 30MW steam turbines generator unit were well installed. Therefore, the installed capacity of the Project was 30MW. The electricity generated was supplied to Anhui power grid, which was a sub-grid of the East China Power Grid (ECPG).

All facilities and equipment as described in the registered PDD were in place; the key specifications of the boiler, steam turbine and generator have been verified with the nameplates/D17/D18/D19/ as below:

Table 3-6 Key technical indicators of major equipment employed by the Project

Item	Quantity	Key technical specifications
Boiler	1 set	Manufacturer: Jinan Boiler Group Co.,Ltd Model:YG-130/9.2-T1 Rated steam output:130t/h Rated steam pressure:9.2 MPa Rated steam temperature:540°C
Steam turbine	1 set	Manufacturer: Qingdao Jieneng Steam Turbine Group Co., Ltd. Model:N30-8.83 Rated output:30MW Rated pressure of main steam: 8.83MPa(a) Rated temperature of main steam:535°C Rated flux of main steam:130t/h
Generator	1 set	Manufacturer: Shandong Jinan Power Equipment Factory Co.,Ltd Model:QF-30-2 Rated output:30MW Rated voltage:10.5kV Rated rotating speed:3,000r/min

The metering instruments involved in this project including:

Electricity Meters:

Four electricity meters were installed, of which:

- Two main meters and two backup meters were installed at two transmission lines⁴. They can measure the bi-directional electricity exported to and imported from the grid by the Project.

Weight Meters:

⁴ According to the Grid Connection Agreement signed between the project owner and grid company, the electricity generated by the project is boosted its voltage from 10KV to 35KV by a transformer and then delivered to the grid by two transmission lines.

One belt weight meter has been installed under the biomass supplying line, and can continuously measure the quantity of biomass residue combusted in the Project.

One weight bridge meter has been installed at the entrance of the Project site, and can measure the quantity of biomass residue transported to the project site.

Diesel Flow Meter:

The diesel consumption of the Project is monitored by diesel flow meter installed at the refueling truck on the Project site.

Moisture Meter:

The moisture of biomass residues has been measured by the moisture analyzer in the testing lab as per the standard procedure.

The calibration records of the meters as the follow Table 3-7:

Table 3-7. Calibration Records of the Meters

Meter	Model/Type	SN	Accuracy Class	Calibration Frequency	Calibration Date	Valid Period
Electricity energy meter 1	AINRTAL	02083345	0.2s	Once per year	03/11/2010 02/11/2011 01/11/2012	03/11/2010 - 02/11/2011 02/11/2011 - 01/11/2012 01/11/2012 - 31/10/2013
Back-up meter of Electricity energy meter 1	AINRTAL	02083299	0.2s	Once per year	03/11/2010 02/11/2011 01/11/2012	03/11/2010 - 02/11/2011 02/11/2011 - 01/11/2012 01/11/2012 - 31/10/2013
Electricity energy meter 2	AINRTAL	02083144	0.2s	Once per year	03/11/2010 02/11/2011 01/11/2012	03/11/2010 - 02/11/2011 02/11/2011 - 01/11/2012 01/11/2012 - 31/10/2013
Back-up meter of Electricity energy meter 2	AINRTAL	02083330	0.2s	Once per year	03/11/2010 02/11/2011 01/11/2012	03/11/2010 - 02/11/2011 02/11/2011 -

						01/11/2012 01/11/2012 - 31/10/2013
Weighbridge	S/ZCS-60	20091203	III	6 months	21/09/2010 20/03/2011 19/09/2011 18/03/2012 17/09/2012 16/03/2013	21/09/2010 - 20/03/2011 20/03/2011 - 19/09/2011 19/09/2011 - 18/03/2012 18/03/2012 - 17/09/2012 17/09/2012 - 16/03/2013 16/03/2013 - 15/09/2013
Weight belt	N20-2-1200	P0070452	1.0	Once per year	21/09/2010 20/09/2011 19/09/2012	21/09/2010 - 20/09/2011 20/09/2011 - 19/09/2012 19/09/2012 - 18/09/2013
Moisture analyzer	SDTGA 300c	3510024c	0.5e	Once per year	21/09/2010 20/09/2011 19/09/2012	21/09/2010 - 20/09/2011 20/09/2011 - 19/09/2012 19/09/2012 - 18/09/2013
Flow meter	SKDS-2001A	101522488	0.3%	Once per year	21/09/2010 20/09/2011 19/09/2012	21/09/2010 - 20/09/2011 20/09/2011 - 19/09/2012 19/09/2012 - 18/09/2013

The calibrations of electricity meters have been conducted by Anhui Electric Power Measurement & Testing Center, authorized by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, with the certificate code of (Guo)Faji(2007) 01073/D47/. The valid period granted for the calibration organization is from 01/12/2007 to 30/11/2012. The valid period of the calibrations can cover the monitoring period.

The calibrations of weight meters, diesel flow meter and moisture analyzer have been conducted by Guzhen County Quality Supervision Technology Institute, authorized by General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, with the certificate code of (Guo)Faji(2010)0212/D48/. The valid period granted for the entity is from 28/02/2010 to 28/02/2015. The valid period of the calibrations can cover the monitoring period.

The verification team has verified the accuracy of the meters as per calibration records/D42/D43/D44/D45/D46/ as well as the nameplate/D50/D63/ and confirmed the accuracy of all the meters meet the requirement of registered PDD/D07/ and VCS MP/D12/D66/.

On the basis of the site visit and the reviewed project documentation, it can be confirmed that with regard to the realized technology, the project equipment as well as the monitoring and metering equipment, the project has been implemented and operated as described in the registered PDD/D07/.

Project Description Deviations

In MR/D67/, there are two deviations as follows:

1. The specific gravity value (pre-defined in the monitoring plan) to convert the volume of diesel into weight 0.84 t/m^3 is used during this monitoring period, which is not consistent with the value 0.88 t/m^3 pre-defined in the monitoring plan.

By checking the type of diesel shown in the purchasing invoices, the verification team confirms that the diesel consumed by the project was light diesel. By checking the Asian Development Bank, Annex 6 of Opportunities for the CDM in the Energy Sector, China, <http://www2.adb.org/Documents/TARs/PRC/tar-prc-3840-fr-app-d.pdf> /D68/, the density for light diesel is 0.84 t/m^3 , and the specific gravity value of 0.88 t/m^3 indicated in registered PDD is for heavy diesel. Therefore, the verification team deems using the density for light diesel for emission reduction calculation is accurate and reasonable.

2. "Net calorific value of biomass residues" ($\text{NCV}_{n,y}$, dry-basis) is not monitored during the monitoring period.

ACM0018 version 02.0.0 allows the project participant not to include the emission source of uncontrolled burning or decay of biomass residues and the combustion of biomass residues for electricity. Both in registered PDD and MR, baseline emissions due to uncontrolled burning or decay of biomass residues ($\text{BE}_{\text{BR},y}$) and project emissions from the combustion of biomass residues ($\text{PE}_{\text{BR},y}$) are not claimed, so parameter $\text{NCV}_{n,y}$ which is used to calculate the above two parameters is not necessary to be monitored. The verification team has checked the ACM0018 version 2.0.0, and deems the only purpose of monitoring $\text{NCV}_{n,y}$ is to calculate $\text{BE}_{\text{BR},y}$ and $\text{PE}_{\text{BR},y}$, so it is not necessary to monitor this parameter if $\text{BE}_{\text{BR},y}$ and $\text{PE}_{\text{BR},y}$ are not calculated.

The verification team deems that the above deviations are appropriately described and justified, and they do not impact the applicability of the methodology, additionality or the appropriateness of the baseline scenario, and the project remains in compliance with the applied methodology, hence these two deviations are in line with para. 3.6.1 (item 2) of VCS version 3.3/D01/, and don't need further prior approval.

For more information regarding the above issues, please refer to CL-5 and CL-8 in Table 1 and Table 2 of Annex 1 of this report.

CL-1, CL-2, CL-3, CL-4 and CL-7 were raised and relevant to the implementation and calibration information of the project, and they were finally closed. For detailed information please refer to Table 1 and Table 2 in Annex 1 of this report.

4.2 Accuracy of GHG Emission Reduction or Removal Calculations

Data and parameters available at validation:

According to the registered PDD/D07/, some data and parameters are determined at validation and don't need to be monitored during monitoring period for ER calculation, the justification of these data and parameters are described as follows:

For parameter $EF_{grid,OM,y}$ and $EF_{grid,BM,y}$, the verification team has checked the MR/D12/, 2011 Baseline Emission Factors for Regional Power Grid in China/D56/ as well as PDD/D07/ and confirmed that these values are sourced from 2011 Baseline Emission Factors for Regional Power Grid in China/D56/, and consistent with the values indicated in the registered CDM PDD/D07/.

$EF_{grid,CM,y}$ is calculated by $EF_{grid,OM,y}$ and $EF_{grid,BM,y}$, that is, $EF_{grid,CM,y} = 0.5 * EF_{grid,OM,y} + 0.5 * EF_{grid,BM,y} = 0.5 * 0.8367 + 0.5 * 0.6622 = 0.74945 \text{ tCO}_2\text{e/MWh}$

For parameter $EF_{CO2,f}$, the verification team confirms that the default value 245gCO₂/t km are sourced from “Project and leakage emissions from road transportation of freight” (Version 01.0.0), and consistent with the value indicated in the registered CDM PDD/D07/.

Therefore, the verification team confirms that the above emission factors and default values that are applied in the calculations and available at validation have been justified as accurate and consistent with the values indicated in the PDD/D07/.

Data and parameters monitored:

Monitoring has been carried out in accordance with the monitoring plan contained in the registered PDD/D07/.

According to the registered PDD/D07/, the following data and parameters need to be monitored for determining the ERs and the way the verification team has verified the values in the monitoring reports are described below:

Data/Parameter:	$EG_{PJ, gross,y}$
Data unit:	MWh
Description:	Gross quantity of electricity generated in all power plants which are located at the project site and included in the project boundary in year y
Source of data:	The electricity generated by the project is continuously monitored by four electricity meters (two serve as the main meters while the other two serve as the backup meters). The sum of the two main meter's reading is the total quantity of electricity generated. The readings of the main electricity meters are read and recorded by grid company every month, and the Transition note of monthly exported electricity/D38/ was issued by the grid company to prove the power exported to grid, while the electricity sales invoices/D39/ can be used for cross checking. The accuracy for the meters is 0.2s, which is in compliance with the monitoring plan (higher than 1.0).The meters are subjected to annual calibration.
Means of verification (including Cross-check)	Four electricity meters were well installed in the control room of the project site to monitor electricity generated by the project and were checked by verification team. The electricity meters are in good condition. Site engineer checks the condition of the electricity meters every day. During verification it was confirmed that no breakdown occurred during this monitoring period. The Transition note of monthly exported electricity/D38/ has been checked by the verification team. In this transition note, it showed the initial and ending reading of each meter for each month, the multiplying power (7000) and the monthly exported electricity. The verification team has verified the total electricity generated by the project in the Transition note of monthly exported electricity/D38/ which is consistent with the

	<p>value shown in the ERs calculation sheet. And the proof of the initial and ending meter's reading for the exported electricity issued by Anhui Power Guzhen power supply Co.,Ltd/D37/ has been checked to confirm the initial and ending reading of monitoring period. Furthermore, the data was cross-checked by the electricity sales invoices/D39/issued by the project owner as well as the quantity of biomass fuels fired (the efficiency based on energy input and output).</p> <p>The efficiencies of project (the output energy of electricity is divided by the total energy input of fuels combusted) are 25.27% in 2011 and 26.67% in 2012, which are similar with the design value shown in the FSR (24.94%).The verification team deems the project's efficiencies are reasonable.</p> <p>The calibration records/D43/ of the electricity meters have been supplied by the project participant and checked by the verification team.</p>
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Data/Parameter:	EG _{PJ,aux,y}
Data unit:	MWh
Description:	Total auxiliary electricity consumption required for the operation of the power plants at the project site
Source of data:	The electricity consumed by the project is continuously monitored by four electricity meters (two serve as the main meters while the other two serve as the backup meters). The sum of the two main meter's reading is the total auxiliary electricity consumption. The reading of the electricity meters is read and recorded by grid company and Project owner (PO for short) every month, and the Statistic sheets of exported and imported electricity/D41/ recorded and summarized by the PP are used to prove the electricity purchased from grid, while the Transition note of monthly purchased grid electricity/D40/ was issued by the grid company can be used for cross checking. The accuracy for the meters is 0.2s, which is in compliance with the monitoring plan (higher than 1.0).The meters are subjected to annual calibration.
Means of verification (including Cross-check)	<p>During the onsite visit, the verification team confirms that all the biomass residue are transported to the plant directly from farm land, and no outside-plant biomass residue collection site was set up for the project. All the mechanical treatment runs in need of electricity is performed on site. Four electricity meters were well installed in the control room of the project site to monitor electricity consumed by the project and were checked by verification team. The electricity meters are in good condition. Site engineer checks the condition of the electricity meters every day. During verification it was confirmed that no breakdown occurred during this monitoring period.</p> <p>The verification team has verified the total electricity consumed by the project in the Statistic sheets of exported and imported electricity/D41/ which are consistent with the value shown in the ERs calculation sheet. And the proof of the initial and ending meter's reading for the purchased electricity issued by Anhui Power Guzhen power supply Co.,Ltd/D36/ has been checked to confirm the initial and ending readings of the meters. Furthermore, the data was cross-checked by the Transition note of monthly on purchased grid electricity issued by grid company/D40/. The calibration records/D43/ of the electricity meters have been supplied by the project participant and checked by the verification team.</p>

Data/Parameter:	Biomass residues categories and quantities used in the project activity
Data unit:	-Type; -Source; -Fate in the absence of the project activity (scenarios B in ACM0018 version 02.0.0); -Use in the project scenario (scenarios P in ACM0018 version 02.0.0); -Quantity (tonnes on dry-basis)
Description:	Explain and document transparently which quantities of which biomass residues categories are used in which installation(s) under the project activity and what is their baseline scenario. These quantities should be updated every year of the crediting period as part of the monitoring plan so as to reflect the actual use of biomass residues in the project scenario. These updated values should be used for emissions reductions calculations.
Source of data:	The quantity of each biomass residue is continuously weighted by one electric belt weight meter. The biomass residues are adjusted for the moisture content in order to determine the quantity of dry biomass and to be compliance with the methodology. The type, source and quantity of the biomass residues are recorded by the project owners in forms of Biomass consuming statistic sheets every day. The meter is subjected to annual calibration by Guzhen County Quality Supervision Technology Institute.
Means of verification (including Cross-check)	One electric belt weight meter was well installed at the under the biomass supplying lines to monitor biomass consumed by the project and were checked by verification team. The weight meter is in good condition. The verification team verified that the reported data in the MR/D12/D66/ are correct and traceable to the data in Biomass consuming statistic sheets/D32/. The calibration records/D45/ of the weight meters have been verified by the verification team. The consumed quantities of each type of biomass residues were cross-checked by the verification team by checking the purchased quantity of the biomass residues and the storage change of the biomass residues/D31/.

Data/Parameter:	For biomass residues categories for which scenarios B1:, B2: or B3: is deemed a plausible baseline alternative, project participants shall demonstrate that this is a realistic and credible alternative scenario
Data unit:	Tonnes
Description:	-Quantity of available biomass residues of type n in the region -Quantity of biomass residues of type n that are utilized (e.g. for energy generation or as feedstock) in the defined geographical region -Availability of a surplus of biomass residues type n (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
Source of data:	Statement regarding the available and utilized biomass output of Guzhen County 2011 and 2012 /D33/ Biomass consuming statistic sheets /D32/
Means of verification	The statements issued by Guzhen County Development and Reform

(including Cross-check)	Commission have been verified by the verification team. According to the statements/33/ and the Biomass consuming statistic sheets /D32/, the verification team confirms that for each kind of the biomass residue of rice straw, peanut straw, maize straw and wood residue, the quantity of available biomass is 157%, 129%, 72% and 216% larger than the that are utilized in 2011 and 157%, 148%, 94% and 163% larger than the that are utilized in 2012, including the project plant. Thus leakage is deemed to be zero.
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Data/Parameter:	Moisture content of the biomass residues
Data unit:	% Water content
Description:	Moisture content of each biomass residue type k
Source of data:	One moisture analyser was well installed and was checked by the verification team. Every time when the truck comes in the plant, the moisture of the biomass carried is measured by the project owner using the moisture analyser. The test data was recorded in the Biomass purchase statement sheets/D30/ and Biomass residues purchase statistic sheets/D31/. The moisture analyzer is subjected to an annual calibration.
Means of verification (including Cross-check)	One moisture analyser was well installed and was checked by the verification team. The monitoring instruments are in good condition. The monitoring procedures in the laboratory of the plant are in place according to authoritative instructions or guidance. Since baseline emissions due to uncontrolled burning or decay of biomass residues ($BE_{BR,y}$) and project emissions from the combustion of biomass residues ($PE_{BR,y}$) is not claimed by the PO, the moisture content values are not used for emission reduction calculation, but only used for the cross-check in the calculation of energy input of the project. The data from the original record of Biomass residues purchase statistic sheets/D31/ are used in the ER calculation spreadsheet, which has been confirmed by the verification team. Operating procedure for Moisture analyser/D62/ is also verified to be appropriate. In addition, the calibration records have been supplied for verification/D46/.

Data/Parameter:	$D_{f,m}$
Data unit:	Kilometre
Description:	Return trip road distance between the origin and destination of freight transportation activity f in monitoring period m
Source of data:	The trip road distance is determined once for each freight transportation activity using the vehicle odometer. Every time when the truck comes in the plant, the weight of the biomass carried is measured and the biomass fuel supply site and the distance between the site to the project are recorded on log books Biomass purchase statement sheets/D30/ and Biomass residues purchase statistic sheets/D31/ by PP at the gate of the plant at the same time. The two documents mentioned above were supplied to verification team. The longest distance is chosen by PP to calculate the project emission for the conservativeness.
Means of verification	The verification team verified that the data used in the ERs calculation sheet /D13/D67/ and reported in the MR/D12/D66/ are the longest

(including Cross-check)	distance shown in the Biomass residues purchase statistic sheets/D31/. During visual visit and interview, the verification team can also confirm that truck information is correctly recorded.
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Data/Parameter:	$FR_{f,m}$
Data unit:	Tonnes
Description:	Total mass of freight transported in freight transportation activity f in monitoring period m
Source of data:	Every time when the truck comes in the plant, the weight of the biomass carried is measured by weighbridge and the biomass fuel supply site and the distance between the site to the project is recorded on Biomass purchase statement sheets/D30/ and Biomass residues purchase statistic sheets/D31/ by PP at the gate of the plant at the same time. The two documents mentioned above were supplied to verification team. Total mass of freight transported is added up according to monthly data.
Means of verification (including Cross-check)	The verification team verified that the data in the ERs calculation sheet /D13/D67/ and reported in the MR/D14/ are correct and traceable to the raw data of Biomass residues purchase statistic sheets/D31/. During visual visit and interview, the verification team can also confirm that truck information is correctly recorded

Data/Parameter:	$FC_{diesel,project,y}$
Data unit:	Mass unit per year
Description:	Quantity of diesel combusted that are attributable to the project activity during the year y
Source of data:	The diesel consumed by the project activity is used for clamp machines, loaders and other machines consuming diesel. The amount of consumption of diesel is monitored by one volume flow meter continuously and recorded by the project participants in forms of Diesel consumption record/34/ The measurement is converted to mass by applying the diesel density of $0.84t/m^3$. By checking the type of diesel shown in the purchasing invoices, the verification team confirms that the diesel consumed by the project was light diesel. By checking the Asian Development Bank, Annex 6 of Opportunities for the CDM in the Energy Sector, China, http://www2.adb.org/Documents/TARs/PRC/tar-prc-3840-fr-app-d.pdf /D68/, the density for light diesel is $0.84t/m^3$, and the specific gravity value of $0.88 t/m^3$ indicated in registered PDD is for heavy diesel. Therefore, the verification team deems using the density for light diesel for emission reduction calculation is accurate and reasonable. The volume flow meters are subjected to annual calibration.
Means of verification (including Cross-check)	One volume flow meter with accuracy class of 0.3% was well installed on the project site and was checked by the verification team. The raw data recorded in Diesel consumption record/34/ has been verified with the data applied for ER calculation /D13/D67/. The verification team confirms the data are consistent in both documents and we can also confirm that no other type of fossil fuel was used for the project activity during onsite visit. Furthermore, the invoice of diesel purchased/D60/ and the stock record of the diesel/D64/ have been verified to cross check the quantity of fossil fuel diesel combusted on the project site. The calibration records of the volume meters have been

	provided for verification/D44/. The verification team can confirmed that the meter in use is well calibrated.
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Data/Parameter:	NCV _{diesel,y}
Data unit:	GJ/tonne
Description:	Net calorific value of diesel
Source of data:	43.3; IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories
Means of verification (including Cross-check)	The value of NCV _i of diesel is 43.3 GJ/t applied for the project, which is sourced from 2006 IPCC Guidelines on National GHG Inventories/D58/ and registered PDD/D07/.It is confirmed by the verification team that 2006 IPCC Guidelines on National GHG Inventories is the latest version of IPCC guideline.

Data/Parameter:	EF _{FF,diesel,y}
Data unit:	tCO ₂ e/GJ
Description:	CO ₂ emission factor of diesel
Source of data:	0.0748; IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories
Means of verification (including Cross-check)	The value of EF _{FF,diesel,y} of diesel is 0.0748 tCO ₂ e/GJ applied for the project, which is sourced from 2006 IPCC Guidelines on National GHG Inventories/D58/ and registered PDD/D07/.It is confirmed by the verification team that 2006 IPCC Guidelines on National GHG Inventories is the latest version of IPCC guideline.

According to the detailed verification process stated in upper part, the verification team is able to confirm that the monitoring has been carried out in accordance with the monitoring plan contained in the PDD/D07/ and the parameters need to be monitored have been verified against the registered PDD/D07/ and the same in the monitoring report, and found complete and accurate considering the project description deviations shown in the section 4.1.

CL-6 was raised regarding to the data source of D_{f,m}. CL-6 was closed finally, for detailed information please refer to Table 1 and Table 2 in the Annex 1 of this report.

In summary, the verification team can confirm that the assumptions, emission factors, default values as well as the monitoring parameters applied in the calculations have been justified as accurate and complete.

Emission reduction calculation:

According to the registered PDD/D07/ and the MR/D12/D66/, the emission reduction ER_y for the project is the baseline emissions BE_y minus the project emissions PE_y and leakage L_y. The detailed aggregated data and calculation process of BE_y, PE_y and L_y are provided in the ER calculation spreadsheet/D13/D67/ and summary calculation of BE_y, PE_y and L_y are stated below:

Baseline Emissions

The project activity will not claim the baseline emission reductions from decay of biomass residues. Therefore, the baseline emissions include the following emission source: CO₂ emissions from grid-connected fossil fuel power plants in the electricity system.

The baseline emissions are calculated as

$$BE_y = BE_{EL,y} = EG_{PJ,y} * EF_{BL,EL,y} = (EG_{PJ,gross,y} - EG_{PJ,aux,y}) * EF_{grid,CM,y}$$

The parameters' values and the result are shown in the following table:

year	Parameter	Unit	Value
2011 (03/01/2011-31/12/2011)	BE _{EL,y}	tCO ₂ e	140,782
	EG _{PJ,gross,y}	MWh	188,586.650
	EG _{PJ,aux,y}	MWh	739.060
	EF _{grid,CM,y}	tCO ₂ e/MWh	0.74945
	BE_y	tCO₂e	140,782
2012 (01/01/2012-06/11/2012)	BE _{EL,y}	tCO ₂ e	119,507
	EG _{PJ,gross,y}	MWh	159,706.680
	EG _{PJ,aux,y}	MWh	247.380
	EF _{grid,CM,y}	tCO ₂ e/MWh	0.74945
	BE_y	tCO₂e	119,507

Project Emissions

The project activity will not claim the baseline emission reductions from decay of biomass residues, and biomass residue will be transported directly to the plant storage site, so there will be no electricity use offsite. Therefore, Project emissions are calculated as follows:

$$PE_y = PE_{FF,y} + PE_{TR,y}$$

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

$$PE_{FF,y} = FC_{diesel,project,y} * NCV_{diesel,y} * EF_{CO_2e,diesel,y}$$

Year	Parameter	Unit	Value
2011 (03/01/2011-31/12/2011)	FR _{f,m}	t	320,067.40
	D _{fm}	km	100
	EF _{CO₂,f}	gCO ₂ e/t km	245
	PE _{TR,y}	tCO ₂ e	7,842
	FF _{project,diesel,y}	t	272.996
	NCV _{diesel,y}	GJ/ton	43.300
	EF _{FF,diesel,y}	tCO ₂ e/GJ	0.0748
	PE _{FF,y}	tCO ₂ e	884
	PE_y	tCO₂e	8,726
2012 (01/01/2012-06/11/2012)	FR _{f,m}	t	319,740.46
	D _{fm}	km	100
	EF _{CO₂,f}	gCO ₂ e/t km	245

	$PE_{TR,y}$	tCO ₂ e	7,834
	$FF_{project,diesel,y}$	t	228.104
	$NCV_{diesel,y}$	GJ/ton	43.300
	$EF_{FF,diesel,y}$	tCO ₂ e/GJ	0.0748
	$PE_{FF,y}$	tCO ₂ e	739
	PE_y	tCO₂e	8,573

Leakage

As per the PDD/D07/ as well as the ACM0018 version 02.0.0, the leakage is zero.

Summary of Emission Reduction

Years	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)
03/01/2011-31/12/2011	140,782	8,726	0	132,056
01/01/2012-06/11/2012	119,507	8,573	0	110,934
Total	260,289	17,299	0	242,990

CAR-2 was raised regarding to the emission reduction data, and it was finally closed. For detailed information please refer to Table 1 and Table 2 in the Annex 1 of this report.

4.3 Quality of Evidence to Determine GHG Emission Reductions or Removals

The detailed type of evidences provided and quality of the evidences has been described in section 4.2 above. All necessary documentation is collected, referenced and is easily accessible in hard-copy or electronic format. The data pertaining to the monitored parameters are maintained in the identified internal records and consistent with the values stated in the Monitoring Report/D12/D66/. Key data have been cross-checked via external sources, such as invoices.

4.4 Management and Operational System

The management system and quality assurance procedures have been stipulated in the CDM Monitoring Management Regulation/D15/. This Regulation/D15/ sets the responsibilities of the monitoring team and the procedures of data collection, managing, submission and archiving, training as well as monitoring equipment management. During onsite inspection, the verification team confirms that the management system of the project is in place, and the responsibilities is properly identified and in place. The staff is well trained and qualified, which is verified during the onsite visit, interviewing with the CDM managers as well as reviewing the training records/D16/.

CL-9 was raised relating to the emergency procedure, and it was closed finally. For the detailed information, please refer to Table 1 and Table 2 in the Annex 1 of this report.

Therefore, re-consult Ltd confirms that the monitoring is in accordance with the monitoring plan in the registered PDD/D07/.

5 VERIFICATION CONCLUSION

re-consult Ltd. has performed the first verification of VCS “Anhui Guzhen Biomass Generation Project” which is a project with the registry reference number 8008 as CDM project for the monitoring period between 03/01/2011 and 06/11/2012. The scope of the activities cover the verification and certification of GHG emissions reductions reported in Monitoring Report Version 2.2 dated 23/07/2013 of “Anhui Guzhen Biomass Generation Project”.

National Bio Energy Co., Ltd. is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions of the project on the basis set out within the project Monitoring Plan indicated in the final PDD. The development and maintenance of records and reporting procedures in accordance with that plan, including the calculation and determination of GHG emission reductions from the project, is the responsibility of the GHG emission reduction management of the Project. The development and maintenance of the records and the related monitoring procedures are in accordance with the Monitoring Report Version 2.2.

The verification has been performed by a verification team consisting of “Mr. Jindong LIANG, Ms. Dan LI, Mr. Linwei Ma” and Johann THALER as an ITR and the project activity was checked against applicable rules and regulations of CDM including Section I of CDM Modalities and Procedures, the relevant guidance and decisions of the COP/MOP, CDM EB and VCS Organization, CDM Validation and Verification Standard version 03.0, CDM Project Standard version 03.0 and CDM Project Cycle Procedure version 03.2, the VCS version 3.3.

re-consult Ltd. hereby confirms that the project activity “Anhui Guzhen Biomass Generation Project” in P.R. China, is implemented in accordance with the registered PDD version 02.0 dated 21/09/2012. The monitoring system is in place and the emission reductions are calculated without material misstatements as per the applied approved methodology, which is ACM 0018 Version 02.0.0.

re-consult confirms the following based on the results of document review and on-site assessment:

Project Title	Anhui Guzhen Biomass Generation Project
Applicable Period	03/01/2011 and 06/11/2012
Baseline Emissions	260,289 tCO ₂ e
Project Emissions	17,299 tCO ₂ e
Leakage Emissions	0 tCO ₂ e
Net GHG Emission Reductions or Removals or Emission Reductions	242,990 tCO ₂ e



Liang JINDONG
Team Leader
23.07.2013



Johann THALER
ITR
23.07.2013



Anil SÖYLER
Certification Manager
23.07.2013

ANNEX 1: VERIFICATION PROTOCOL

Table 1 – VCS Monitoring Report (MR) Form Requirements

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
Cover Page and General Requirements					
1. Are all items in the box at the bottom of the cover page completed using Arial 10pt, black, regular (non-italic) font?	VCS Version 3.3	DR	Yes. By checking the MR/D12/ provided by the PO, it is confirmed that all items in the box at the bottom of the cover page are using the correct font.	OK	OK
2. Are the followings provided at the cover page in a tabular format?	VCS Version 3.3	DR	Yes, by checking the MR/D12/, it is confirmed that the following are provided at the cover page in a tabular format.	OK	OK
2.1. Name of the project?	VCS Version 3.3	DR	Yes, by checking the MR/D12/, it is confirmed the name of the project, Anhui Guzhen Biomass Generation Project, is listed on the cover page in a tabular format.	OK	OK
2.2. Version number of the VCS MR?	VCS Version 3.3	DR	Yes, by checking the MR/D12/, it is confirmed the version number of the project, version 1.0, is listed on the cover page in a tabular format. In the final version MR/D66/, the version number is updated as 2.0.	OK	OK
2.3. Report ID of the document	VCS Version 3.3	DR	N/A	OK	OK
2.4. The issuance date of the document in DD-Month-YYYY format?	VCS Version 3.3	DR	Yes, by checking the MR/D12/, it is confirmed the issuance date of the project, 28/05/2013, is listed on the cover page in a tabular format. In the final version MR/D66/, the issuance date is revised as 17/07/2013.	OK	OK
2.5. VCS project database ID, if registered		DR	N.A. The Project has not been registered as VCS project, so there is no report ID.	OK	OK
2.6. Monitoring period in DD-Month-YYYY to DD-Month-YYYY format	VCS Version 3.3	DR	Yes, by checking the MR/D12/, it is confirmed the monitoring period, 03/01/2011 to 06/11/2012, is listed on the cover page in a tabular format.	OK	OK
2.7. Individual or entity that prepared the document?	VCS Version 3.3	DR	Yes, by checking the MR/D12/, it is confirmed the entity that prepared the document, National Bio Energy Co., Ltd., is listed on the cover page in a tabular format.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
2.8. Physical address, telephone, email, website?	VCS Version 3.3	DR	Yes, the physical address, telephone, email and website are listed on the cover page.	OK	OK
3. Is this box available on the title page of the final document?	VCS Version 3.3	DR	Yes, it is confirmed by checking the MR/D12/ that the box is available on the title page of the final document.	OK	OK
4. Is the VCS MR used as a basis for verification prepared in accordance with the latest template and guidance from the VCS?	VCS Version 3.3	DR	Yes, it is confirmed that the VCS MR/D12/ is prepared in accordance with the latest template and guidance from the VCS by checking the MR/D12/ against the latest version of VCS MR template/D10/ and VCS/D01/.	OK	OK
5. Are the VCS MR and other documents required under the VCS Program in English?	VCS Version 3.3	DR	Yes, by checking the VCS MR/D12/, PD/D11/ and the ER spreadsheet/D13/, it is confirmed that they are in English.	OK	OK
1. PROJECT DETAILS					
1.1. Summary Description of Project					
1.1.1. Has a brief summary of the project description provided under Section 1.1 of the MR?	VCS Version 3.3 EB70 Report Annex 11	DR	Yes, a brief summary of the project description has been provided under Section 1.1 of MR/D12/.	OK	OK
1.1.2. Has the purpose of the project activity and the measures taken to reduce greenhouse gas emissions been provided under section 1.1 of the MR?	VCS Version 3.3 EB70 Report Annex 11	DR	Yes, by checking the section 1.1 of MR/D12/, it is confirmed that the project will install one 130t/h boiler and one 30MW steam turbine generator, using rice straw, maize straw, peanut straw and wood residues as fuel for power generation, which is the purpose of the project activity and the measures taken to reduce GHG emission.	OK	OK
1.1.3. Has a brief description of the installed technology and equipment been provided under Section 1.1 of the MR?	VCS Version 3.3 EB70 Report Annex 11	DR	Yes, by checking the section 1.1 of MR/D12/, it is confirmed that the project will install one 130t/h boiler and one 30MW steam turbine generator.	OK	OK
1.1.4. Has the relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) been provided under Section 1.1 of the MR?	VCS Version 3.3 EB70 Report Annex 11	DR	No. The relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) have not been provided under Section 1.1 of the MR/D12/. CL-1 is raised. CL-1 is closed and please refers to table 2.	OK -1	OK
1.1.5. Has the total emissions reductions achieved in this monitoring period been provided under	VCS Version 3.3	DR	No. The total emission reductions achieved in this monitoring period has not been provided under section 1.1 of the MR/D12/.	OK -2	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
Section 1.1 of the MR?	EB70 Report Annex 11		CL-2 is raised. CL-2 is closed and please refers to table 2.		
1.2. Sectoral Scope and Project Type					
1.2.1. Is it indicated whether this a grouped project under Section 1.2 of the MR?	VCS Version 3.3	DR/SV	Yes. By checking the section 1.2 of MR/D12/, it stated that the project is not a grouped project, which is checked and confirmed by the validation team during the onsite visit.	OK	OK
1.2.2. Is the sectoral scope(s) applicable to the project indicated?	VCS Version 3.3	DR	Yes. The sectoral scope 1: energy industries (renewable sources) is applicable to the project, which is verified by checking the registered PDD/D07/ and CDM validation report/D08/.	OK	OK
1.2.3. Is the category of the project activity specified?	VCS Version 3.3	DR	Yes. The category of the project activity is specified as renewable sources.	OK	OK
1.3. Project Proponent					
1.3.1. Are the contact information and roles/responsibilities for the project proponent(s) provided?	VCS Version 3.3	DR	Yes. By checking the section 1.3 of MR/D12/, it is confirmed that the contact information and roles/responsibilities for the project proponent has been provided.	OK	OK
1.4. Other Entities Involved in the Project					
1.4.1. Are the contact information and roles/responsibilities for any other entities involved in the development of the project provided?	VCS Version 3.3	DR	No. There are no other entities involved in the project.	OK	OK
1.5. Project Start Date					
1.5.1. Is the project start date (the date on which the project began reducing or removing GHG emissions) indicated in day, month and year format?	VCS Version 3.3	DR/I	Yes. The project start date, 03/01/2011, is indicated in day, month and year format, and the date is verified by cross checking the documents/D22//D23/ and the interviews with PP.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
1.6. Project Crediting Period					
1.6.1. Is the total crediting period including the day, month and year for the start and end dates and the total number of years indicated?	VCS Version 3.3	DR	Yes. The start date of the project crediting period, 03/01/2011, and the end date of the project crediting period, 06/11/2012, and the total number of years, 1year, 11months and 4 days, are indicated in the section 1.6 of MR /D12/.	OK	OK
1.7. Project Location					
1.7.1. Has complete information on the location of the project activity, including town, city, country and GPS coordinates been provided under Section 1.7 of the MR?	VCS Version 3.3	DR	Yes. In section 1.7, the complete information on the location and GPS coordinates are provided under section 1.7 of the MR, which is verified as consistent with the information shown in the registered CDM PDD/D07/ and CDM validation report/D08/.	OK	OK
1.8. Title and Reference of Methodology					
1.8.1. Is the following information provided regarding the methodology(s) applied to the project?	VCS Version 3.3	DR	Yes. The following information provided in section 1.8 of MR/D12/.	OK	OK
1.8.1.1. The title of the methodology(ies)	VCS Version 3.3	DR	Yes. The title of the methodology shown in the section 1.8 of MR/D12/ is Approved consolidated baseline and monitoring methodology ACM0018 (ver 2.0.0): "Consolidated methodology for electricity generation from biomass residues in power-only plants", which is verified as consistent as that shown in the registered CDM PDD/D07/.	OK	OK
1.8.1.2. The reference of the methodology(ies)	VCS Version 3.3	DR	Yes. The reference of the methodology is provided.	OK	OK
1.8.1.3. The version number of the methodology(ies)	VCS Version 3.3	DR	Yes. The version number of the methodology, version 2.0.0, is provided in the section 1.8 of MR/D12/, which is verified as consistent as that shown in the registered CDM PDD/D07/.	OK	OK
				OK	OK
2. IMPLEMENTATION STATUS					
2.1. Implementation Status of The Project Activity					
2.1.1. Has a description of the implementation and operational status of the project as of this	EB70 Report Annex 11	DR	The description of the implementation and operational status of the project is not provided in detail and clearly under section 2.1 of the	CL-3	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
monitoring period been provided under section 2.1 of the MR?			MR. CL-3 is raised. CL-3 is closed and please refers to table 2.		
2.1.2. Has the installed technology(ies), technical process and equipment, including the diagrams, where appropriate, been included in section 2.1 of the MR?	EB70 Report Annex 11	DR	No. It is not included into the MR. The installed technology, technical process and equipment, including the diagrams, where appropriate, shall be included in section 2.1 of the MR. CL-4 is raised. CL-4 is closed and please refers to table 2.	CL-4	OK
2.1.3. Has the starting date of operation of the project activity been provided under Section 2.1 of the MR?	EB70 Report Annex 2 § 191b	DR	Yes. The starting date of the operation of the project activity, 03/01/2011, is provided under section 2.1 of the MR, and the date is verified by cross checking the documents/D22//D23/ and the interviews with PP.	OK	OK
2.1.4. Does the project activity consist of more than one site?	EB70 Report Annex 2 § 191b	SV	No. The project only consist one site which is verified by the site visit.	OK	OK
2.1.5. If the project activity consists of more than one site, has the status of implementation and starting date of operation for each site been clearly described under Section 2.1 of the MR?	EB70 Report Annex 2 § 191b	DR	N.A.	OK	OK
2.1.6. Is the implementation of the project activity planned to be realized in different phases? (Phased implementation)	EB70 Report Annex 2 § 191b	I/SV	No. The implementation of the project activity is not realized in different phases, which is verified by the interviews and inspection during onsite.	OK	OK
2.1.7. If the implementation of the project activity planned to be realized in different phases, has the progress of the proposed VCS project activity achieved in each phase been indicated under Section 2.1 of the MR?	EB70 Report Annex 2 § 191b	DR	N.A.	OK	OK
2.1.8. Has a brief description of the events or situations that occurred during the monitoring period, which may affect the applicability of the methodology been provided under Section 2.1 of the MR?	EB70 Report Annex 2 § 191c	DR	Yes. under section 2.1 of MR/D12/, it is indicated that there is no long term overhaul and equipment exchange during the monitoring period and no special events happened, which may affect the applicability of the methodology.	OK	OK
2.1.9. Has a brief description of how the issues resulting from these events or situations are	EB70 Report Annex 2		N.A.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
being addressed been provided under Section 2.1 of the MR?	§ 191c				
2.1.10. Do the actual project activity and its operation comply with the registered PD and/or an approved revised PD?	EB70 Report Annex 3 § 226 § 230	DR/SV	Yes. It is confirmed that the actual project activity and its operation complies with the registered PDD/D07/ by checking the registered PDD/D07/ and onsite inspection. (The project has been registered under CDM program, so in this case the document is not the registered PD but registered PDD)	OK	OK
2.1.11. Have the PPs implemented and operated the VCS project activity as per the descriptions contained in the registered PD?	EB70 Report Annex 3 § 226		Yes. By checking the registered PDD/D07/ as well as inspection during onsite, It is confirmed that the PPs implemented and operated the VCS project activity as per the descriptions contained in the registered PDD.	OK	OK
2.1.12. Has the installed technology(ies), technical process and equipment, including the diagrams, where appropriate, been included in Section 2.1 of the MR?	EB70 Report Annex 11	DR	No. It is not included into the MR. Please refer to CL-4. CL-4 is closed and please refers to table 2.	CL-4	OK
2.2. Deviations from the Monitoring Plan					
2.2.1. Are there any deviations from the monitoring plan?	VCS Version 3.3	DR	N.A. By checking the MR against the monitoring plan shown in the registered CDM PDD/D07/, the validation team confirms that there is no deviation from the monitoring plan.	OK	OK
2.2.2. If there are any deviations from the monitoring plan, are the deviations from the monitoring plan in the project description described properly?	VCS Version 3.3	DR	N.A.	OK	OK
2.2.3. If there are any deviations from the monitoring plan, are the deviations from the monitoring plan in the project description justified properly and clearly?	VCS Version 3.3	DR	N.A.	OK	OK
2.3. Grouped Projects					
2.3.1. Is this a grouped project?	VCS Version 3.3	DR	N.A	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
2.3.2. If it is a grouped project, is the relevant information about new instances of the project activity(s) provided?	VCS Version 3.3	DR	N.A	OK	OK
2.3.3. If it is a grouped project, is it demonstrated clearly and transparently that each new instance of the project activity(s) meets the eligibility criteria set out in the project description?	VCS Version 3.3	DR	N.A	OK	OK
3. DATA AND PARAMETERS					
3.1. Data and Parameters Available at Validation					
3.1.1. Has all the data that is determined only once for the crediting period but are used after registration of the project, been listed under Section 3.1 using the tabular format?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/ and the registered CDM PDD/D07/, the data that is determined only once for the crediting period but are used after registration of the project has been listed under section 3.1 using the tabular format.	OK	OK
3.1.2. If all the data that is determined only once for the crediting period but are used after registration of the project, does the listed data include all the parameters used to calculate baseline, project and leakage emissions as well as other relevant parameters required by the approved methodology and the monitoring plan?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/ and the registered CDM PDD/D07/, it is confirmed that the listed data includes all the parameters used to calculate baseline, project and leakage emissions as well as other relevant parameters required by ACM0018 version 02.0.0 and the monitoring plan shown in CDM PDD/D07/. (In the CDM PDD/D07/, the parameters $GEN_{j,y}$, $r_{j,y}$, $EF_{CO_2,i,y}$, $CAP_{j,y}$, $NCV_{i,y}$, $FC_{i,j,y}$, Oxidation rate, $FC_{adv,coal}$, $FC_{adv,oil/gas}$ are used to calculate $EF_{grid,OM,y}$ and $EF_{grid,BM,y}$, and the values of these two parameters are sourced from 2011 Baseline Emission Factors for Regional Power Grid in China. So, in the MR, $EF_{grid,OM,y}$ and $EF_{grid,BM,y}$ are listed and there is no necessary to list other parameters used to calculate above two parameters)	OK	OK
3.1.3. In the data/parameter tables provided under Section 3.1 of the MR, for each data has the name of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the name of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.1.4. In the data/parameter tables provided under Section 3.1 of the MR, for each data has the unit of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the unit of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.1.5. In the data/parameter tables provided under Section 3.1 of the MR, for each data has the description of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the description of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.1.6. In the data/parameter tables provided under Section 3.1 of the MR, for each data has the source of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the source of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.1.7. In the data/parameter tables provided under Section 3.1 of the MR, for each data has the values applied of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the values of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.1.8. In the data/parameter tables provided under Section 3.1 of the MR, for each data has it been indicated what the data/parameters are used for (baseline/project /leakage emission calculations)?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the purpose of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.2. Data and Parameters Monitored					
3.2.1. Has all the data that are monitored been listed under Section 3.2 using the tabular format?	EB70 Report Annex 11 VCS Version 3.3	DR	The parameter "Net calorific value of biomass residues" which was listed in the monitoring plan of PDD/D07/ is not listed in MR/D12/. Please clarify. CL-5 is raised. CL-5 is closed and please refer to table 2.	OK -5	OK
3.2.2. In the data/parameter tables provided under section 3.2 of the MR, for each data has the name of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the name of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.2.3. In the data/parameter tables provided under section 3.2 of the MR, for each data has the unit of the data/parameters given in accordance with the registered VCS PD and the applied approved methodology?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/, it is confirmed that for each data the unit of the data/parameters has given in accordance with the registered CDM PDD/D07/ and ACM0018 version 02.0.0/D03/.	OK	OK
3.2.4. In the data/parameter tables provided under	EB70	DR	Yes. By checking the MR/D12/, it is confirmed that for each data it	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
section 3.2 of the MR, for each data has it been described how the data is monitored?	Report Annex 11 VCS Version 3.3		has been described how the data is monitored under section 3.2 of the MR which is accordance with the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/		
3.2.5. In the data/parameter tables provided under section 3.2 of the MR, for each data has the source of data been indicated (like logbooks, daily records, surveys, etc.)?	EB70 Report Annex 11 VCS Version 3.3	DR	It is not clear which is the data source for the distance records between origin and destination of freight transportation. CL-6 is raised. CL-6 is closed and please refer to table 2.	CL-6	OK
3.2.6. In the data/parameter tables provided under section 3.2 of the MR, for each data has the values of the monitoring parameter been indicated?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that for each data the value of the data has provided under section 3.2 of the MR.	OK	OK
3.2.7. In the data/parameter tables provided under section 3.2 of the MR, for each data has the QA/QC procedures being applied been given?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that for each data the QA/QC has given under section 3.2 of the MR, which is accordance with the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/	OK	OK
3.2.8. In the data/parameter tables provided under section 3.2 of the MR, for each data has it been indicated what types of equipment are used to monitor each parameter, including following, if applicable as per the monitoring plan?	EB70 Report Annex 11 VCS Version 3.3	DR	By checking the MR/D12/, it is confirmed that for each data it has been indicated what type of equipment are used to monitor under section 3.2 of the MR, which is accordance with the registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/. However, for the parameter $EG_{PJ, gross, y}$ and $EG_{PJ, aux, y}$, only the main meters are included into the table, there is no information including details on accuracy class, calibration frequency, serial number calibration date, validity of the calibration for the backup meters. CL-7 is raised. CL-7 is closed and please refers to table 2.	CL-7	OK
3.2.8.1. Details on accuracy class	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that the accuracy class of the monitoring equipment have been provided and it is verified as correct and in accordance with the monitoring plan/D07/ by checking the monitoring equipment/D49//D50//D51//D63/ and calibration certificates /D42/D43/D44/D45/D46/ during onsite visit.	OK	OK
3.2.8.2. Calibration frequency	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that the calibration frequency of the monitoring equipment have been provided and it is verified as correct and in accordance with the monitoring plan/D07/ by checking the calibration certificates /D42/D43/D44/D45/D46/ during onsite visit.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.2.8.3. Serial number	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that the serial number of the monitoring equipment have been provided and it is verified as correct by checking the monitoring equipment/D49//D50//D51//D63/ and calibration certificates /D42/D43/D44/D45/D46/ during onsite visit.	OK	OK
3.2.8.4. Calibration date	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that the calibration date of the monitoring equipment have been provided and it is verified as correct by checking the calibration certificates /D42/D43/D44/D45/D46/ during onsite visit.	OK	OK
3.2.8.5. Validity of the calibration	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that the validity of the calibration of the monitoring equipment have been provided and it is verified as correct by checking the calibration certificates /D42/D43/D44/D45/D46/ during onsite visit. And the verification confirms the validity of the calibration covers the whole monitoring period.	OK	OK
3.2.9. In the data/parameter tables provided under section 3.2 of the MR, for each data has the measurement and recording frequency been indicated?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed that for each date the measurement and recording frequency have been provided and it is verified as accordance with registered CDM PDD/D07/ as well as ACM0018 version 02.0.0/D03/.	OK	OK
3.2.10. Is the calibration frequency for measuring equipment specified in the monitoring methodology, guidance provided by the Board or the monitoring plan?	EB70 Report Annex 3 § 241 VCS Version 3.3	DR	Yes. By checking the registered CDM PDD/D07/, it is confirmed that the calibration frequency for measuring equipment are specified in the registered CDM PDD/D07/ as follows: The meters, weigh meters and moisture analyzers of the Project will be calibrated once a year by qualified third parties.	OK	OK
3.2.11. If the calibration frequency for measuring equipment isn't specified in the monitoring methodology, guidance provided by the Board or the monitoring plan, are the equipment calibrated either in accordance with the specifications of the local/national standards, or as per the manufacturer's specification?	EB70 Report Annex 3 § 242 VCS Version 3.3	DR	N.A. The calibration frequency for measuring equipment is specified in the monitoring plan in the registered CDM PDD/D07/, so this item is not applicable.	OK	OK
3.2.12. If neither local/national standards nor the manufacturer's specification are available, have the international standards been used?	EB70 Report Annex 3 § 242 VCS Version 3.3	DR	N.A. The calibration frequency for measuring equipment is specified in the monitoring plan in the registered CDM PDD/D07/, so this item is not applicable.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.2.13. Is the calibration of the measuring equipment that have an impact on the claimed emission reductions conducted by the PPs at a frequency specified in the applied monitoring methodology and/or the monitoring plan?	EB70 Report Annex 3 § 237 VCS Version 3.3	DR	Yes. By checking the certificates /D42/D43/D44/D45/D46/, it is confirmed that the calibration of the measuring equipment have been conducted by the PPs at a frequency which is in compliance with that specified in the ACM0018 version 02.0.0/D03/ and monitoring plan/D07/.	OK	OK
3.2.14. Has the calibration been delayed and has the calibration been implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available) for the certain monitoring period?	EB70 Report Annex 3 § 238 VCS Version 3.3	DR	No. By checking the calibration certificates /D42/D43/D44/D45/D46/, it is confirmed that the calibration has not been delayed, and the validity period of the calibration has been covered the whole monitoring period.	OK	OK
3.2.15. If the calibration is delayed and if the calibration is implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available) for the certain monitoring period, are one of the following approaches adopted by the PPs for the calculation of emission reductions?	EB70 Report Annex 3 § 238 VCS Version 3.3	DR	N.A. By checking the certificates /D42/D43/D44/D45/D46/, it is confirmed that the calibration has not been delayed, and the validity period of the calibration has been covered the whole monitoring period.	OK	OK
3.2.15.1. Applying the maximum permissible error of the instrument to the measured values taken during the period between the scheduled date of calibration and the actual date of calibration, if the results of the delayed calibration do not show any errors in the measuring equipment, or if the error is smaller than the maximum permissible error; or	EB70 Report Annex 3 § 238 VCS Version 3.3	DR	N.A.	OK	OK
3.2.15.2. Applying the error identified in the delayed calibration test, if the error is beyond the maximum permissible error of the measuring equipment.	EB70 Report Annex 3 § 238 VCS Version 3.3	DR	N.A.	OK	OK
3.2.16. If calibration is delayed and if the calibration is implemented after the monitoring period in consideration (i.e. the results of delayed calibration are available) for the certain monitoring period, has the error been applied in following ways?	EB70 Report Annex 3 § 239 VCS Version 3.3	DR	N.A.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.2.16.1. The adjusted measured values of the delayed calibration result in fewer claimed emission reductions?	EB70 Report Annex 3 § 239 VCS Version 3.3	DR	N.A.	OK	OK
3.2.16.2. For all measured values taken during the period between the scheduled date of calibration and the actual date of calibration?	EB70 Report Annex 3 § 239 VCS Version 3.3	DR	N.A.	OK	OK
3.2.17. If the results of the delayed calibration aren't available, is there any plan to conduct the required calibration?	EB70 Report Annex 3 § 240 VCS Version 3.3	DR	N.A.	OK	OK
3.2.18. If the results of the delayed calibration aren't available, have Pss calculated the emission reductions conservatively?	EB70 Report Annex 3 § 240 VCS Version 3.3	DR	N.A.	OK	OK
3.2.19. If the results of the delayed calibration aren't available, have post registration requirements been followed by the PPs?	EB70 Report Annex 3 § 241 VCS Version 3.3	DR	N.A.	OK	OK
3.2.20. Have any information about appropriate emission factors, IPCC default values and any other reference values that have been used in the calculation of emission reductions been given in detail in the MR?	EB70 Report Annex 11 VCS Version 3.3	DR	By checking the MR/D12/, it is confirmed the two parameters $NCV_{diesel,y}$ and $EF_{FF,diesel,y}$ are sourced from IPCC default values, and they have been given in detail in the section 3.2 of MR. The specific gravity value for converting diesel volume to weight shown in the MR/D12/ (indicated as 0.84 t/m3) is not consistent with the registered PDD (indicated as 0.88 t/m3). CL-8 is raised. CL-8 is closed and please refer to table 2.	CL-8	OK
3.2.21. In the data/parameter tables provided under section 3.2 of the MR, for each data has	EB70 Report	DR	N.A. As per the template of MR/D10/, it is not necessary to provide the	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
it been indicated what the data/parameters are used for? (baseline/project /leakage emission calculations)	Annex 2 § 194 VCS Version 3.3		data/parameters' purpose under section 3.2.		
3.2.22. If the data that are monitored been listed under section 3.2 using the tabular format, does the listed data include all the parameters used to calculate baseline, project and leakage emissions as well as other relevant parameters required by the approved methodology and the monitoring plan?	EB70 Report Annex 11 VCS Version 3.3	DR	Yes. By checking the MR/D12/ against the ACM0018 version 02.0.0/D03/ and monitoring plan shown in the registered CDM PDD/D07/, it is confirmed that the listed data under section 3.2 include all the parameters used to calculate baseline, project and leakage emissions as well as other relevant parameters required by the approved ACM0018 version 02.0.0/D03/.	OK	OK
3.2.23. Is a complete set of data available for the specified monitoring period?	EB70 Report Annex 3 § 245 VCS Version 3.3	DR	Yes. By checking the MR/D12/ against the ACM0018 version 02.0.0/D03/ and monitoring plan shown in the registered CDM PDD/D07/, it is confirmed that a complete set of data is available for the specified monitoring period.	OK	OK
3.3. Description of the Monitoring Plan					
3.3.1. Has a description of the monitoring system been provided under Section 3.3 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3	DR/I	Yes. By checking the MR/D12/, it is confirmed that the description of the monitoring system has been provided in the section 3.3 of MR, which is also verified by interviews during onsite visit.	OK	OK
3.3.2. Has information about the data collection procedures, including following been provided under Section 3.3 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3	DR	Yes. By checking the MR/D12/, it is confirmed the information about data collection procedures has been provided under section 3.3 of the MR.	OK	OK
3.3.2.1. Information flow including data	EB70	DR	Yes. Under section 3.3 of MR/D14/, the information flow including	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
generation	Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3		data generation is described.		
3.3.2.2. Data aggregation	EB70 Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3	DR	Yes. Under section 3.3 of MR/D14/, the information flow including data generation is described.	OK	OK
3.3.2.3. Data recording	EB70 Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3	DR	Yes. Under section 3.3 of MR/D14/, data recording is described.	OK	OK
3.3.2.4. Data calculation	EB70 Report Annex 11 EB70 Report Annex 2 §193 VCS Version 3.3	DR	Yes. Under section 3.3 of MR/D14/, data calculation is described.	OK	OK
3.3.2.5. Data reporting	EB70 Report Annex 11 EB70 Report Annex 2	DR	Yes. Under section 3.3 of MR/D14/, data reporting is described.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
	§ 193 VCS Version 3.3				
3.3.3. Has organizational structure, roles and responsibilities of personnel, and emergency procedures for the monitoring system been provided under section 3.3 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3	DR	The emergency procedure for the monitoring system can't be found in the MR/D12/. CL-9 is raised. CL-9 is closed and please refer to table 2.	CL-9	OK
3.3.4. Regarding to the management and operational system, are the responsibilities and authorities for monitoring and reporting in accordance with the responsibilities and authorities stated in the monitoring plan?	EB70 Report Annex 3 § 234 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the responsibilities and authorities for monitoring and reporting regarding to management and operational system are checked to be in accordance with the responsibilities and authorities stated in the monitoring plan/D07/.	OK	OK
3.3.5. Have quality assurance and quality control procedures been applied in accordance with the monitoring plan?	EB70 Report Annex 3 § 234 VCS Version 3.3	DR	Yes. By checking the MR/D12/, the QA/QC are checked to be in accordance with the responsibilities and authorities stated in the monitoring plan/D07/.	OK	OK
3.3.6. Has line diagram(s) showing all relevant monitoring points been provided under section 3.3 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 193 VCS Version 3.3	DR	Yes. By checking the line diagram shown in the MR/D12/, it is confirmed all relevant monitoring points has been provided under section 3.3.	OK	OK
3.3.7. If data and parameters monitored described in section 3.2 of the MR are determined by a sampling approach, has the description on how PPs implemented the sampling for those data and parameters according to the sampling plan been provided?	EB70 Report Annex 11 EB69 Report Annex 4	DR	N.A. No data and parameters are determined by sampling approach.	OK	OK
3.3.8. If data and parameters monitored described in section 3.2 of the MR are determined by a	EB70 Report	DR	N.A.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
sampling approach, has the following been included?	Annex 11 EB69 Report Annex 4		No data and parameters are determined by sampling approach.		
3.3.8.1. Description of implemented sampling design;	EB70 Report Annex 11	DR	N.A. No data and parameters are determined by sampling approach.	OK	OK
3.3.8.2. Collected data (electronic spreadsheets may be attached and referenced);	EB70 Report Annex 11	DR	N.A. No data and parameters are determined by sampling approach.	OK	OK
3.3.8.3. Analysis of the collected data;	EB70 Report Annex 11	DR	N.A. No data and parameters are determined by sampling approach.	OK	OK
3.3.8.4. Demonstration on whether the required confidence/precision has been met.	EB70 Report Annex 11	DR	N.A. No data and parameters are determined by sampling approach.	OK	OK
3.3.9. Have the monitoring plan and the applied methodology been properly implemented and followed by the PPs?	EB70 Report Annex 3 § 229 § 233 VCS Version 3.3	DR/SV	Yes. By checking against the monitoring plan/D07/ and ACM0018 version 02.0.0/D03/ as well as onsite inspection, it is confirmed that the monitoring plan and the applied methodology have been properly implemented and followed by the PP.	OK	OK
3.3.10. Has the monitoring of parameters (baseline / project / leakage / emission reduction) in the project activity been implemented in accordance with the monitoring plan contained in the registered PD or any accepted revised monitoring plan?	EB70 Report Annex 3 § 234 VCS Version 3.3	DR	Yes. By checking the registered CDM PDD/D07/ and onsite inspection, it is confirmed that the monitoring of parameters in the project activity has been implemented in accordance with the monitoring plan contained in the PDD/D07/.	OK	OK
3.3.11. Have all parameters stated in the monitoring plan, the applied methodology and relevant VCS requirements been sufficiently monitored and updated as applicable?	EB70 Report Annex 3 § 234 VCS Version 3.3	DR	Yes. By checking the monitoring plan/D07/, ACM0018 version 02.0.0/D03/ and onsite inspection, it is confirmed that all necessary parameters has been sufficiently monitored.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
3.3.12. Are monitoring results consistently recorded and stored as per the approved frequency?	EB70 Report Annex 3 § 234 VCS Version 3.3	DR	Yes. By checking the monitoring data record/D32//D35//D38//D40/, it is confirmed that they are consistently recorded and stored as per the approved frequency.	OK	OK
4. QUANTIFICATION of GHG EMISSION REDUCTIONS and REMOVALS					
4.1. Baseline Emissions					
4.1.1. Has all the formulae used to calculate the baseline emissions been provided under section 4 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 EB70 Report Annex 3 § 245 VCS Version 3.3	DR	Yes. Under section 4 of the MR/D12/, all the formulae used to calculate the baseline emission has been provided.	OK	OK
4.1.2. Has sample calculations for all formulae used and calculation of baseline emissions or baseline net GHG removals by sinks, applying actual values been provided under section 4 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	Yes. The calculations applying actual values have been provided under section 4 of the MR/D12/.	OK	OK
4.1.3. Has all electronic spread sheets to present full calculations in the monitoring report been attached?	EB70 Report Annex 11 EB70 Report Annex 2 §197 VCS	DR	Yes. The electronic spread sheets/D13/ to present full calculations have been provided for verification.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.1.4. Have any assumptions used in baseline emission calculations been justified?	Version 3.3 EB70 Report Annex 3 §245 VCS Version 3.3	DR	Yes. The values of $EG_{PJ, gross, y}$ and $EG_{PJ, aux, y}$ have been justified as corrected by checking the documents/D36/D37/D38/D39/D40/D41/.	OK	OK
4.1.5. If applicable, are the appropriate emission factors used for the baseline emission calculations in line with the good guidance practices? (e.g. IPCC default values and other reference values)	EB70 Report Annex 3 § 245 VCS Version 3.3	DR	Yes. The value of $EF_{grid, CM, y}$ are checked as appropriate by checking the 2011 Baseline Emission Factors for Regional Power Grid in China/D56/.	OK	OK
4.2. Project Emissions					
4.2.1. Has all the formulae used to calculate the project emissions been provided under section 4.2 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 EB70 Report Annex 3 § 245 VCS Version 3.3	DR	Yes. Under section 4 of the MR/D12/, all the formulae used to calculate the project emission has been provided.	OK	OK
4.2.2. Has sample calculations for all formulae used and calculation of project emissions or or actual net GHG removals by sinks, applying actual values been provided under section E.2 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	Yes. The calculations applying actual values have been provided under section 4 of the MR/D12/.	OK	OK
4.2.3. Has all electronic spreadsheets to present full calculations in the monitoring report been attached?	EB70 Report Annex 11 EB70	DR	Yes. The electronic spread sheets/D13/ to present full calculations have been provided for verification.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
	Report Annex 2 §197 VCS Version 3.3				
4.2.4. Have any assumptions used in project emission calculations been justified?	EB70 Report Annex 3 § 245 VCS Version 3.3	DR	The values of D_{fm} have been justified as conservative by checking the following documents/D31/. The values of $FC_{diesel,project,y}$ have been justified as correct by checking the documents/D34/D35/61//D64/. The value of $FR_{f,m}$ have been justified as correct by checking the document/D30/D31/D32/.	OK	OK
4.2.5. If applicable, are the appropriate emission factors used for the project emission calculations in line with the good guidance practices? (e.g. IPCC default values and other reference values)	EB70 Report Annex 3 § 245 VCS Version 3.3	DR	Yes. The verification team has been checked the following emission factors and confirms the appropriateness: The value of $EF_{CO_2,f}$ is accordance with the value shown in the Project and leakage emissions from road transportation of freight/D57/; The value of $NCV_{diesel,y}$ is accordance with the default value shown in IPCC default values as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories/D58/; The value of $EF_{FF,diesel,y}$ is accordance with the default value provided in Table 1.4 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories/D58/;	OK	OK
4.3. Leakage					
4.3.1. Has all the formulae used to calculate the leakage emissions been provided under section E.3 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 EB70 Report Annex 3 § 245 VCS Version 3.3	DR	N.A. There is no leakage caused by the project activity, which is consistent with the results shown in the registered CDM PDD/D07/.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.3.2. Has sample calculations for all formulae used and calculation of leakage emissions, applying actual values been provided under section E.3 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	N.A.	OK	OK
4.3.3. Has all electronic spread sheets to present full calculations in the monitoring report been attached?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	N.A.	OK	OK
4.3.4. Have any assumptions used in leakage emission calculations been justified?	EB70 Report Annex 3 § 245 VCS Version 3.3	DR	N.A.	OK	OK
4.3.5. If applicable, are the appropriate emission factors used for the leakage emission calculations in line with the good guidance practices? (e.g. IPCC default values and other reference values)	EB70 Report Annex 3 § 245 VCS Version 3.3	DR	N.A.	OK	OK
4.4. Summary of GHG Emission Reductions and Removals					
4.4.1. Have the total baseline emissions or baseline net GHG removals by sinks during the monitoring period been given under section 4 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS	DR	Yes. Under section 4 of the MR/D12/, the total baseline emission during monitoring period has been given, which is consistent with the values shown in the ER calculation spreadsheet/D13/.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
4.4.2. Has the total project emissions or actual net GHG removals by sinks during the monitoring period been given under section E.4 of the MR?	Version 3.3 EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	Yes. Under section 4 of the MR/D12/, the total project emission during monitoring period has been given, which is consistent with the values shown in the ER calculation spreadsheet/D13/.	OK	OK
4.4.3. Has the total leakage emissions during the monitoring period been given under section E.4 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	Yes. Under section 4 of the MR/D12/, the total leakage emission during monitoring period has been given as zero, which is consistent with the values shown in the ER calculation spreadsheet/D13/.	OK	OK
4.4.4. Have the total emission reductions or net anthropogenic GHG removals by sinks during the monitoring period been given under section E.4 of the MR?	EB70 Report Annex 11 EB70 Report Annex 2 § 197 VCS Version 3.3	DR	Under section 4 of the MR/D12/, the total emission reductions during monitoring period have been provided. But the estimated net GHG emission reductions 110,933 tCO ₂ e in 2012 is not the result of estimated baseline emissions minus estimated project emissions (119,506-8,572=110,934) tCO ₂ e CAR-2 is raised. CAR-2 is closed and please refer to table 2.	CAR-2	OK
4.4.5. Are there any material information detected?	EB69 Report Annex 6 §8 §15 §19	DR	No. There is no material information detected during the verification. There are some CARs and CLs are raised during the gap validation and verification, but no one belongs errors, omissions or misstatements reporting could change a decision by the Board.	OK	OK
4.4.6. If there is material information that can cause overestimation of emission reductions or removals of the project activity, is this equal to higher than one of the following?	EB69 Report Annex 6 §10 §12 §15 §17	DR	N.A.	OK	OK
4.4.6.1. 0.5 per cent of the emission reductions or removals for project activities	EB69 Report	DR	N.A.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
achieving a total emission reduction or removal of equal to or more than 500,000 tons of carbon dioxide equivalent per year?	Annex 6 §10				
4.4.6.2. 1 per cent of the emission reductions or removals for project activities achieving a total emission reduction or removal between 300,000 and 500,000 tons of carbon dioxide equivalent per year?	EB69 Report Annex 6 §10	DR	N.A.	OK	OK
4.4.6.3. 2 per cent of the emission reductions or removals for large-scale project activities achieving a total emission reduction or removal of 300,000 tons of carbon dioxide equivalent per year or less?	EB69 Report Annex 6 §10	DR	N.A.	OK	OK
4.4.6.4. 10 per cent of the emission reductions or removals for the microscale project activities?	EB69 Report Annex 6 §10	DR	N.A.	OK	OK
4.4.6.5. 5 per cent of the emission reductions or removals for small-scale project activities other than project activities covered under 4.4.6.4 above?	EB69 Report Annex 6 §10	DR	N.A.	OK	OK
5. ADDITIONAL INFORMATION					
5.1. If any further background information regarding any raw data from monitoring is provided, is this information correct and supported by the appropriate evidence?	VCS Version 3.3	DR	N.A. There is no any further background information provided in the MR/D12/.	OK	OK
5.2. If any further background information regarding additional information used in the monitoring plan is provided, is this information correct and supported by the appropriate evidence?	VCS Version 3.3	DR	N.A. There is no any further background information provided in the MR/D12/.	OK	OK
5.3. If any further background information regarding documentation of activities conducted from the monitoring plan and diagrams are provided, is this information correct and supported by the appropriate evidence?	VCS Version 3.3	DR	N.A. There is no any further background information provided in the MR/D12/.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Question	Reference	Means of verification*	Findings, comments, references and document sources	Draft opinion	Final opinion
6. OTHER REQUIREMENTS					
6.1. Forward Action Requests (FARs) Identified During Validation and/or Previous Verification					
6.1.1. Is there any remaining FARs from the validation and/or previous verification activities?	EB70 Report Annex 3 § 27 § 213 § 220 § 223	DR	No. There is no FARs from the validation and there are no previous verification activities.	OK	OK
6.1.2. If there any remaining FARs from the validation and/or previous verification activities, have the PPs addressed these FARs in the MR?	EB70 Report Annex 3 § 27 § 213 § 220 § 223	DR	N.A.	OK	OK
6.1.3. Has the FARs been resolved?	EB70 Report Annex 3 § 27 § 213 § 220 § 223	DR	N.A.	OK	OK

*DR= Document Review, I= Interview, SV=Site Visit

Table 2 – Resolution of Corrective Action, Forward Action and Clarification Requests

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response					Verification Team Conclusion										
<p>CAR-1</p> <p>Under section 1.7 of PD version 1.0, it is indicated that the project is a large project. Considering the estimated annual GHG emission reduction of the project is lower than 300,000 tCO₂, this scale classification is not in compliance with the rules indicated in para. 3.9.1 of VCS.</p>	-	<p>The project scale under section 1.7 of PD has been categorized as “project”.</p>					<p>OK.</p> <p>By checking the revised PD, the validation team confirms that the project scale under section 1.7 of PD has been changed to “project”. Since the estimated annual GHG emission reductions of the project are lower than 300,000tCO₂, as per 3.9.1 of VCS, the scale of the project belongs to “project” scale.</p> <p>CAR-1 is closed.</p>										
<p>CAR-2</p> <p>Under section 4 of the MR the total emission reductions during monitoring period have been provided. But the estimated net GHG emission reductions 110,934 tCO₂e in 2012 is not the result of estimated baseline emissions minus estimated project emissions (119,507-8,572=110,934) tCO₂e</p>	4.4.4	<p>For the conservativeness, the project emission has been rounded it up to 8,573. Then the estimated net GHG emission reductions 110,934 tCO₂e in 2012 is consistent with the result of estimated baseline emissions minus estimated project emissions (119,507-8,573) tCO₂e.</p> <p>In ER calculation sheet, the project emission of 2011 and 2012 have been rounded it up and baseline emission of 2011 and 2012 have been rounded it down. The final emission reduction of 2011 and 2012 are conservative by this round-off method.</p> <table border="1" data-bbox="676 1036 1438 1359"> <thead> <tr> <th data-bbox="676 1036 835 1279">Years</th> <th data-bbox="835 1036 982 1279">Estimated baseline emissions or removals (tCO₂e)</th> <th data-bbox="982 1036 1129 1279">Estimated project emissions or removals (tCO₂e)</th> <th data-bbox="1129 1036 1285 1279">Estimated leakage emissions (tCO₂e)</th> <th data-bbox="1285 1036 1438 1279">Estimated net GHG emission reductions or removals (tCO₂e)</th> </tr> </thead> <tbody> <tr> <td data-bbox="676 1279 835 1359">03/01/2011-31/12/2011</td> <td data-bbox="835 1279 982 1359">140,782</td> <td data-bbox="982 1279 1129 1359">8,726</td> <td data-bbox="1129 1279 1285 1359">0</td> <td data-bbox="1285 1279 1438 1359">132,056</td> </tr> </tbody> </table>					Years	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)	03/01/2011-31/12/2011	140,782	8,726	0	132,056	<p>OK.</p> <p>By checking the updated ER calculation spreadsheet, it is confirmed that the project emission have been rounded up, and baseline emission have been rounded down.</p> <p>The verification team considers the final emission reductions are conservative by this rounding method.</p> <p>CAR-2 is closed.</p>
Years	Estimated baseline emissions or removals (tCO ₂ e)	Estimated project emissions or removals (tCO ₂ e)	Estimated leakage emissions (tCO ₂ e)	Estimated net GHG emission reductions or removals (tCO ₂ e)													
03/01/2011-31/12/2011	140,782	8,726	0	132,056													

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response					Verification Team Conclusion
		01/01/2012-06/11/2012	119,507	8,573	0	110,934	
		Total	260,289	17,299	0	242,990	
CL-1 The relevant dates for the project activity (e.g. construction, commissioning, continued operation periods, etc.) have not been provided under Section 1.1 of the MR.	1.1.4	<p>The project started construction on March 31st, 2010 and started operation on January 3rd, 2011. The expected life-time of the project is 20 years.</p> <p>The description above has been added under Section 1.1 of the MR.</p>					<p>OK.</p> <p>By checking the revised MR, it is confirmed that the relevant dates for the project activity have been provided under section 1.1 of the MR.</p> <p>And the dates are checked as consistent with the registered CDM PDD.</p> <p>CL-1 is closed.</p>
CL-2 The total emission reductions achieved in this monitoring period has not been provided under section 1.1 of the MR.	1.1.5	<p>The project activity achieved emission reductions of 242,990 tCO2e during this monitoring period from 03/01/2011 to 06/11/2012.</p>					<p>OK.</p> <p>By checking the revised MR, it is confirmed that the total emission reduction achieved in this monitoring period has been provided, which is consistent with the value shown in the ER spreadsheet.</p> <p>CL-2 is closed.</p>
CL-3 The description of the implementation and operational status of the project is not provided in detail and clearly under section 2.1 of the MR.	2.1.1	<p>The description of the implementation status of the project activity under section 2.1 of the MR has been revised as below:</p> <p>The project started construction on March 31st, 2010 and started operation on January 3rd, 2011. There is no long term overhaul and equipment exchange during the monitoring period. There is no special events happened during the monitoring period which may affect the applicability of the methodology. Rice straw, maize straw, peanut straw and wood residues are used as fuel for power generation which is the same as project design.</p> <p>The project was registered as CDM on 07/11/2012.</p>					<p>OK.</p> <p>By checking the revised MR, it is confirmed that the description of the implementation and operational status of the project is provided under section 2.1. By checking the registered PDD as well as onsite inspection, the verification team confirms this description reflects the actual situation and has no difference with the registered PDD.</p> <p>CL-3 is closed.</p>
CL-4	2.1.2	<p>The Project installed one 130t/h boiler and one 30MW steam turbine</p>					<p>OK.</p>

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion									
<p>The installed technology, technical process and equipment, including the diagrams, where appropriate, shall be included in section 2.1 of the MR.</p>		<p>generator which are the same as described in the project PDD. The technical specifications of main equipments are listed as below:</p> <table border="1" data-bbox="688 378 1423 1360"> <thead> <tr> <th data-bbox="688 378 829 444">Item</th> <th data-bbox="829 378 947 444">Quantity</th> <th data-bbox="947 378 1423 444">Key technical specification</th> </tr> </thead> <tbody> <tr> <td data-bbox="688 444 829 842">Boiler</td> <td data-bbox="829 444 947 842">1 set</td> <td data-bbox="947 444 1423 842"> Type:YG-130/9.2-T1; Rated steam output: 130t/h; Rated steam pressure: 9.2 MPa(a); Rated steam temperature: 540°C; Life time: 20 years Manufacturer: Jinan Boiler Group Co., Ltd. </td> </tr> <tr> <td data-bbox="688 842 829 1360">Steam turbine</td> <td data-bbox="829 842 947 1360">1 set</td> <td data-bbox="947 842 1423 1360"> Model: N30-8.83 Rated output: 30MW; Rated pressure of main steam: 8.83 MPa(a); Rated temperature of main steam: 535°C; Rated flux of main steam: 130t/h; Life time: 20 years Manufacturer: Qingdao Jieneng Steam Turbine Group Co., Ltd. </td> </tr> </tbody> </table>	Item	Quantity	Key technical specification	Boiler	1 set	Type:YG-130/9.2-T1; Rated steam output: 130t/h; Rated steam pressure: 9.2 MPa(a); Rated steam temperature: 540°C; Life time: 20 years Manufacturer: Jinan Boiler Group Co., Ltd.	Steam turbine	1 set	Model: N30-8.83 Rated output: 30MW; Rated pressure of main steam: 8.83 MPa(a); Rated temperature of main steam: 535°C; Rated flux of main steam: 130t/h; Life time: 20 years Manufacturer: Qingdao Jieneng Steam Turbine Group Co., Ltd.	<p>By checking the revised MR, it is confirmed that the installed technology, technical process and equipment, including the diagrams has been included in section 2.1. The information are checked as correct by checking the nameplates of equipments during onsite inspection. CL-4 is closed.</p>
Item	Quantity	Key technical specification										
Boiler	1 set	Type:YG-130/9.2-T1; Rated steam output: 130t/h; Rated steam pressure: 9.2 MPa(a); Rated steam temperature: 540°C; Life time: 20 years Manufacturer: Jinan Boiler Group Co., Ltd.										
Steam turbine	1 set	Model: N30-8.83 Rated output: 30MW; Rated pressure of main steam: 8.83 MPa(a); Rated temperature of main steam: 535°C; Rated flux of main steam: 130t/h; Life time: 20 years Manufacturer: Qingdao Jieneng Steam Turbine Group Co., Ltd.										

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response			Verification Team Conclusion
		Generator	1 set	Model: QF-30-2 Rated output: 30MW; Rated voltage: 10.5kV; Rated rotating speed: 3,000r/min; Life time: 20 years Manufacturer: Shangdong Jinan Power Equipment Factory Co., Ltd	
CL-5 The parameter "Net calorific value of biomass residues" which was listed in the monitoring plan of PDD is not listed in MR. Please clarify.	3.2.1	Besides, a figure to show the boundary of the project has been added, for details please see page 6 of the revised MR. According to the methodology ACM 0018 (version 2.0.0), the parameter "Net calorific value of biomass residues" (NCV _{n,y} , dry-basis) is for the calculation of baseline emissions due to uncontrolled burning or decay of biomass residues (BE _{BR,y}) and project emissions from the combustion of biomass residues (PE _{BR,y}). ACM 0018 allows the project participant not include the emission source of uncontrolled burning or decay of biomass residues and the combustion of biomass residues for electricity. Both in registered PDD and MR, the project participant decided not to include the above two emission source, then BE _{BR,y} and PE _{BR,y} should not be claimed. NCV _{n,y} is not directly related to the calculation of emission reduction, thus it is not necessary to monitor it during the monitoring period. Thus it is not listed in MR and ER calculation spreadsheet.			OK. The verification team has checked the ACM0018 version 2.0.0, and deems the only purpose of monitoring NCV _{n,y} is to calculate BE _{BR,y} and PE _{BR,y} , so it is not necessary to monitor this parameters if BE _{BR,y} and PE _{BR,y} are not calculated. CL-5 is closed.
CL-6	3.2.5	The data source for the distance records between origin and destination			OK.

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
It is not clear which is the data source for the distance records between origin and destination of freight transportation.		of freight transportation has been revised as "Determined once for each freight transportation activity f for a reference trip using the vehicle odometer. The distance of each freight transportation activity to the project site was recorded when it arrived."	By interviewing and inspection during onsite visit, the verification team confirms that the description in the update MR is the actual situation and in accordance with the ACM0018 version 02.0.0. CL-6 is closed.
CL-7 During onsite inspection, there are four meters used to monitor the parameters $EG_{PJ, gross, y}$ and $EG_{PJ, aux, y}$, but under section 3.2 and 3.3 of MR, only the main meters are described, there is no information including details on accuracy class, calibration frequency, serial number calibration date, validity of the calibration for the backup meters.	3.2.8	The detail information of back up meters has been added into section 3.2 and 3.3 of MR.	OK. By checking the revised MR, it is confirmed that the detailed information regarding backup meters have been added under section 3.2 and 3.3, and the information are verified as correct by checking the Calibration certificate of the electronic meters issued by Anhui Electric Power Measurement & Testing Center. CL-7 is closed.
CL-8 The specific gravity value for converting diesel volume to weight shown in the MR (indicated as $0.84 t/m^3$) is not consistent with the value indicated in the registered PDD (indicated as $0.88 t/m^3$).	3.2.20	The specific gravity value of $0.88 t/m^3$ indicated in registered PDD is for heavy diesel, but the diesel consumed by the project was light diesel. Therefore, the specific gravity value of $0.84 t/m^3$ was used. This is also conservative.	OK. By checking the type of diesel shown in the purchasing invoices, the verification team confirms that the diesel consumed by the project was light diesel. By checking the Asian Development Bank, Annex 6 of Opportunities for the CDM in the Energy Sector, China, http://www2.adb.org/Documents/TARs/PRC/tar-prc-3840-fr-app-d.pdf , the density for light diesel is $0.84t/m^3$, and the specific gravity value of $0.88 t/m^3$ indicated in registered PDD is for heavy diesel. Therefore, the verification team deems using the density for light diesel for

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

Draft Report Clarifications, Forward Action and Corrective Action Requests By Verification Team	Ref. to Checklist Questions in Table-1	Summary of Project Participants' Response	Verification Team Conclusion
			emission reduction calculation is accurate and reasonable. CL-8 is closed.
CL-9 The emergency procedure for the monitoring system can't be found in the MR.	3.3.3	Emergency procedures has been added in MR as "If the monitoring system occurred emergency accident, the data handling and reporting manager would report to project manager immediately and record the monitored data when the accident occurred and settled. And the emission reduction during this period would be estimated on conservative measures. If conservative measures were not available, the emission reduction should not be claimed during the failure period.."	OK. By checking the CDM Monitoring management regulation issued by National Bio Energy Co., Ltd. as well as onsite interviewing with PO, the verification team confirms the emergency procedures reflect the company rules and they are reasonable. CL-9 is closed.

* CAR= Corrective Action Request, FAR= Forward Action Request, CL= Clarification Request

ANNEX 2: VERIFICATION TEAM AND ITR COMPETENCE


Stefan Jindong LIANG, has M.Sc. degree in Environmental Science and Engineering and Bachelor Engineering degree in Environmental Engineering from Tsinghua University in China. He has more than 4 years of experience in GHG emission reduction projects Validation and Verification, and is a certified Lead Verifier for ISO 14064-2006. Prior to joining the re-consult, Stefan Liang was employed as GHG Lead Auditor at ERM CVS and GHG Auditor at TUV Rheinland, and have lead/participated in more than 80 CDM registered, in sectoral scopes 1(Wind, Hydro and Biomass to energy), 4 (waste energy recovery), 8 and 10 (Coal mine methane to energy) and 13 (municipal solid waste incineration to energy, wastewater treatment methane to energy and Landfill gas to energy). He has been working as a contracted team leader and renewable energy expert in the context of re-consult.

Dan LI, has M.Sc. degree in Biochemistry Engineering and Bachelor Engineering degree in Biotechnology Engineering from Beijing University of Chemical Technology in China. She has more than 5 years of experience in GHG emission reduction projects service field and is a certified training auditor for ISO 9001. Prior to joining the re-consult, Dan Li was employed as CDM project manager at a CDM consulting company and registered 10 projects in sectoral scope 1 and 13. She also worked as trainee validator/verifier at China Classification Society Certification Company and has several registered projects including wind, solar and hydro projects. She has been working as a contracted validator/verifier in the context of re-consult.

Linwei MA holds a B.Sc. and PhD degree in Power Mechanics and Engineering from Tsinghua University in China. He is employed as an assistant Professor, Thermal Engineering Department at the Tsinghua University for more than four years. He conducts academic research in thermal energy field and has almost fifteen years of professional experience in total. He has also published books and papers in the energy field. He has been working as a contracted thermal energy and power plant expert in the context of re-consult.

Johann THALER holds a Bsc. degree in Environmental Economics from Ausburg University and is located in Brazil. He has auditing experience since 2004 and has been working as assessment team leader, auditor and technical reviewer in more than 300 CDM, GS and VCS emission reduction projects across several scopes and technical areas. He is holding the technical expertise of TA 1.1, 1.2, 3.1. and 13.1. He worked as lead auditor in several CDM and PoA projects located in South- and Central America, Africa and Asia. He has been working as a contracted team leader, technical reviewer, TA 1.1 and renewable energy expert in the context of re-consult.

Annex 2-1: Appointment Certificates

re-consult Rıza'ın Enerji Danışmanlık İc ve Dağ Tic. Ltd. Şti. Bağış Plaza Muharrem Yılmazoğlu Cad. 43/14 TR / 06020 Balgat-Ankara Tel: 0090-312-287 51 22 Fax: 0090-312-287 33 73	Certificate of Appointment part of the Neutral Power group	
	Carbon Department	

This Certificate of Appointment is given to **Mr. Stefan Liang JINDONG** as a confirmation of compliance with internal qualification requirements as follows:

Clean Development Mechanism				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
02-05-2013	02-05-2013	02-05-2013	N/A	02-05-2013


Verified Carbon Standard, Gold Standard, World Commission on Dams, Social Carbon				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
02-05-2013	02-05-2013	02-05-2013	N/A	02-05-2013

Speciality	Regional expertise	Financial expertise	Technical area	
			1.1	1.2
N/A	8,11	N/A	N/A	02-05-2013

Within the scope and in strict accordance to the appointment indicated above, the bearer can:

1. Participate in the assessments conducted by Re-consult Ltd.
2. Take the roles within and outside of the assessment team
3. Bring specific expertise to the assessments

The validity of each appointment is 1 year from the dates indicated above. The Certificate may be updated, suspended or withdrawn at any time, subject to changes in Appointee's qualification, changes in the requirements for appointment or expiry of one of the appointments above.

APPOINTMENT IS GRANTED BY			
Name	Position	Date	Signature
Mr. Anıl SÖYLER	Certification Manager	2 May 2013	

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re-consult Rıza'ın Enerji Danışmanlık İc ve Dağ Tic. Ltd. Şti. Bağış Plaza Muharrem Yılmazoğlu Cad. 43/14 TR / 06020 Balgat-Ankara Tel: 0090-312-287 51 22 Fax: 0090-312-287 33 73	Certificate of Appointment part of the Neutral Power group	
	Carbon Department	

This Certificate of Appointment is given to **Mrs. Dan Li** as a confirmation of compliance with internal qualification requirements as follows:

Clean Development Mechanism				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
01-03-2013	01-03-2013	N/A	N/A	01-03-2013

Verified Carbon Standard, Gold Standard, World Commission on Dams, Social Carbon				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
01-03-2013	01-03-2013	N/A	N/A	01-03-2013

Speciality	Regional expertise	Financial expertise	Technical area	
			1.1	1.2
N/A	8, China	01-03-2013	N/A	01-03-2013

Within the scope and in strict accordance to the appointment indicated above, the bearer can:

1. Participate in the assessments conducted by Re-consult Ltd.
2. Take the roles within and outside of the assessment team
3. Bring specific expertise to the assessments

The validity of each appointment is 1 year from the dates indicated above. The Certificate may be updated, suspended or withdrawn at any time, subject to changes in Appointee's qualification, changes in the requirements for appointment or expiry of one of the appointments above.

APPOINTMENT IS GRANTED BY			
Name	Position	Date	Signature
Mr. Anıl SÖYLER	Certification Manager	1 March 2013	

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re-consult Rıza'ın Enerji Danışmanlık İc ve Dağ Tic. Ltd. Şti. Bağış Plaza Muharrem Yılmazoğlu Cad. 43/14 TR / 06020 Balgat-Ankara Tel: 0090-312-287 51 22 Fax: 0090-312-287 33 73	Certificate of Appointment part of the Neutral Power group	
	Carbon Department	

This Certificate of Appointment is given to **Dr. Linwei MA** as a confirmation of compliance with internal qualification requirements as follows:

Clean Development Mechanism				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
N/A	N/A	N/A	N/A	07-09-2012

Verified Carbon Standard, Gold Standard, World Commission on Dams, Social Carbon				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
N/A	N/A	N/A	N/A	07-09-2012

Speciality	Regional expertise	Financial expertise	Technical area	
			1.1	1.2
Thermal energy	World-wide	N/A	07-09-2012	N/A


Within the scope and in strict accordance to the appointment indicated above, the bearer can:

1. Participate in the assessments conducted by Re-consult Ltd.
2. Take the roles within and outside of the assessment team
3. Bring specific expertise to the assessments

The validity of each appointment is 1 year from the dates indicated above. The Certificate may be updated, suspended or withdrawn at any time, subject to changes in Appointee's qualification, changes in the requirements for appointment or expiry of one of the appointments above.

APPOINTMENT IS GRANTED BY			
Name	Position	Date	Signature
Mr. Denis ISAKOV	Certification Manager	07-09-2012	

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re-consult Rıza'ın Enerji Danışmanlık İc ve Dağ Tic. Ltd. Şti. Bağış Plaza Muharrem Yılmazoğlu Cad. 43/14 TR / 06020 Balgat-Ankara Tel: 0090-312-287 51 22 Fax: 0090-312-287 33 73	Certificate of Appointment part of the Neutral Power group	
	Carbon Department	

This Certificate of Appointment is given to **Mr. Johann THALER** as a confirmation of compliance with internal qualification requirements as follows:

Clean Development Mechanism				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
05-06-2013	05-06-2013	05-06-2013	05-06-2013	05-06-2013


Verified Carbon Standard, Gold Standard, World Commission on Dams, Social Carbon				
Validator	Verifier	Team leader	Technical reviewer	Technical Expert
05-06-2013	05-06-2013	05-06-2013	05-06-2013	05-06-2013

Speciality	Regional expertise	Financial expertise	Technical area	
			1.1	1.2
N/A	4,7,8 and 17	05-06-2013	N/A	05-06-2013

Within the scope and in strict accordance to the appointment indicated above, the bearer can:

1. Participate in the assessments conducted by Re-consult Ltd.
2. Take the roles within and outside of the assessment team
3. Bring specific expertise to the assessments

The validity of each appointment is 1 year from the dates indicated above. The Certificate may be updated, suspended or withdrawn at any time, subject to changes in Appointee's qualification, changes in the requirements for appointment or expiry of one of the appointments above.

APPOINTMENT IS GRANTED BY			
Name	Position	Date	Signature
Mr. Anıl SÖYLER	Certification Manager	5 June 2013	

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