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Validation Report

Carbon Asset Management Sweden AB

VALIDATION OF THE CDM-PROJECT: YULONG TONGLI WHR PROJECT,

REPORT NO. 1017077

2008, May 29

TÜV SÜD Industrie Service GmbH

Carbon Management Service
Westendstr. 199 - 80686 Munich – GERMANY

Industrie Service

Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
1017077	2007-07-30	2	2008-05-29	-

Subject: Validation of a CDM Project	
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany	**TÜV SÜD Contract Partner:** TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 - 80686 Munich Federal Republic of Germany
Client: Carbon Asset Management Sweden AB Drottninggatan 92-94, 111 36 Stockholm, Sweden	**Project Site(s):** Zhumadian Yulong Tongli Cement Co., Ltd, which is situated in Queshan County, Zhumadian City, Henan province, China, at a distance of 0.5 km from Jing-guang Railway, 1.0 km from 107 national highway.
Project Title: Yulong Tongli WHR Project	
Applied Methodology / Version: ACM0004 / version 2	**Scope(s):** 1, 4
First PDD Version: Date of issuance: 2007-03-02 Version No.: YH-01 Starting Date of GSP 2007-06-20	**Final PDD version:** Date of issuance: 2008-05-28 Version No.: 03
Estimated Annual Emission Reduction: 54 547 tons CO_{2e}	
Assessment Team Leader: Dr. Sven Kolmetz	**Further Assessment Team Members:** Ms. Xuemei Li, Mr. Ling Liu, Mr. Jimmy Zhou

Summary of the Validation Opinion:

☒ The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.

☐ The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.

Abbreviations

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

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1 INTRODUCTION

1.1 Objective

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

The project activity discussed by this validation report has been submitted under the project title:

Yulong Tongli WHR Project

1.2 Scope

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

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

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

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

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

2 METHODOLOGY

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

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

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

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

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

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

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

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

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

2.1 Appointment of the Assessment Team

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

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

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

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

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Dr. Sven Kolmetz	**ATL**	þ	þ	þ
Mr. Jimmy Zhou	**GHG-A**	þ		þ
Mr. Ling Liu	**T**	þ		þ
Ms. Xuemei Li	**T**	þ		þ

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

Mr. Jimmy Zhou is an environmental engineer and an auditor for environmental management systems (according to ISO 14001) at Jiangsu TUV Product Service Ltd. He is based in Guangzhou. In his position he is responsible for the implementation of validation, verification and certifications audits for management systems. He has received training in the CDM validation process and participated already in several CDM project assessments. Before entering TUV SUD Guangzhou Branch he worked as Quality Engineer in industrial companies.

Mr. Ling Liu is an economist and a GHG auditor-trainee for environmental management systems at Jiangsu TUV Product Service Ltd. He is based in Guangzhou. He has received training in the CDM validation process and participated already in several CDM project assessments

Ms. Xuemei Li is a GHG auditor-trainee for environmental management systems at Jiangsu TUV Product Service Ltd. She is based in Guangzhou. She has received training in the CDM validation process and participated already in several CDM project assessments. Before entering TUV SUD Guangzhou Branch she worked for a consulting company where she was specialized on CDM.

2.2 Review of Documents

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

2.3 Follow-up Interviews

In the period of July 13th, 2007 TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of this on-site visit.

Name	Organisation
Mr. Ronggang Ren	Production Department Manager, Henan Tongli Groups
Mr. Lei Xia	General Engineer, Zhumadian Yulong Cement Co., Ltd
Ms. Ranqiu Ma	Vice General Manager, Shanghai Chuanji investment Co., Ltd
Ms. Zhiwei Ma	Project Manager, Shanghai Chuanji Investment Management Co., Ltd.
Mr. Jian Zhang	Vice Manager, Zhumadian Yulong Cement Co., Ltd

2.4 Resolution of Clarification and Corrective Action Requests

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

2.5 Internal Quality Control

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

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

3 SUMMARY OF FINDINGS

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

History of the validation process

The audit team has been provided with the first PDD version in June 2007. Based on this documentation a document review and a fact finding mission in form of an on-site audit has taken place. Afterwards the client decided to revise the PDD according to the CARs and CRs indicated in the audit process. The final PDD version submitted in January 2008 serves as the basis for the assessment presented herewith. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM to achieve a reduction of anthropogenic GHG emissions by sources and to contribute to sustainable development.

Project description

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

Zhumadian Yulong Tongli Cement Co. Ltd. has one clinker production line with capacity of 5,000 t/d located in Zhumadian City, Henan Province. At present, the electricity consumed in the cement production of the project entity was imported from Central China Power Grid. The annual power demand of the project entity was 176,550 MWh.

In cement plants about 90% of total energy is used as heat energy in clinker production. Out of the total heat consumed in the calcination process, about 35% of the heat is discharged as waste heat to the surrounding without utilization. To effectively utilize the low temperature waste heat of the exit gases from the Suspension Preheater (SP) and Air Quenching Chamber (AQC), the project entity has decided to build one waste heat recovery captive power station.

The project activity includes the installation of 2 WHR boilers (one WHR boiler for SP waste gas and one WHR boiler for AQC waste gas), one steam turbine and one generator. The total power capacity of the steam turbine generator is 9 MW. After implementation of the project activity, the annual expected substituted amount of electricity supplied from Central China Power Grid will be 55,940 MWh which will displace the equivalent amount of electricity supplied by the Central China Power

Grid, thereby reducing the emission of GHGs from burning of fossil fuels at thermal power plants which supply electricity to the grid.

Findings

In total the assessment team expressed 10 Corrective Action Requests and three Clarification Requests.

Some of the requests addressed formal aspects and inconsistencies between the documents delivered during the audit and the PDD (CAR1 – 4, 6, 7). This includes requests in terms of using the predetermined formats and giving specific data. Parameter calculation was wrong (CAR 5) and had to be corrected by the project developer. Besides this the monitoring has to be described more detailed (CAR 8) and the project owner has to supply additional information. Regarding the stakeholder process additional documents had to be delivered (CAR 9, 10).

The Clarification requests addressed the sending of additional material which has to be sent to the DOE for a traceable IRR calculation (CR 1, 2, 3). All requested documents have been delivered and the PDD has been revised accordingly.

Baseline calculation

For the BM calculation the PDD adopts modified methods agreed by the EB for the approved methodologies AM0005 (the predecessor of ACM0002) and AMS I.D (referring to ACM0002), because plant specific data are not available in China. The emission factor of the thermal power plants is calculated by the proportion of the emissions of coal, gas and oil times the emission factor of the best available coal, gas and oil power plant as defined and published by the Chinese DNA. The new thermal capacity installation that exceeds 20% in the last years, for which data are available, is finally assessed with this factor. The BM factor is slightly higher than the figure recently published by the Chinese NDRC due to two small mistakes in the calculation of the NDRC. According to IPCC2006, the emission factor of coke should be 29.2 tC/TJ instead of 25.8 at NDRC. According to IPCC2006, the emission factor of refinery gas should be 15.7 tC/TJ, instead of 18.2 in NDRC.

Additionality

The additionality has been evidenced by investment analysis. The IRR calculation will be uploaded together with the PDD. The basic figures of the calculation have been evidenced by the Feasibility Study Report. The calculation has been reviewed and is considered to be correct. The sectoral benchmark from the “Project Economic Evaluation Method and Parameters”, dated 2006 has been used and verified by the audit team.

The sensitivity analysis has been verified and the assumptions are reasonable. Even if there are changes of up to 10% the IRR is still below the benchmark.

The consideration of CDM before construction has been confirmed by the agreement of CDM development which was signed by Zhumadian Yulong Cement Co., ltd and Shanghai Chuanji Investment Management Co., Ltd. on 08/09/2006 which is before the starting date (9/12/2006) of the proposed project.

The common practice has been reviewed by checking the officially available sources. The Tongli projects, all of them applying for CDM, are the first of its kind in this province.

Since all the open questions have been closed the project is in compliance with the CDM requirements.

<u>The following issues have been raised:</u>

Issue 1

The DOE shall confirm how it has validated that the input values of the IRR meet the requirements of EB 38 paragraph 54 (c).

AND

Issue 2

Further clarification is required how the DOE has validated that the start date of the project ac-tivity is as per the CDM glossary of terms, particularly in context to the inconsistency between the PDD and the validation report.

AND

Issue 3

The methodology requires that among the alternatives that do not face any prohibitive barriers, the most economically attractive alternative should be considered as the baseline scenario.. Clarification should be provided why no such comparison has been conducted in the determination of the baseline.

AND

Issue 4

Further clarification is requested on how the DOE has validated that the emission factor used is more conservative than that published by the DNA of China.

Referring to Issue 1

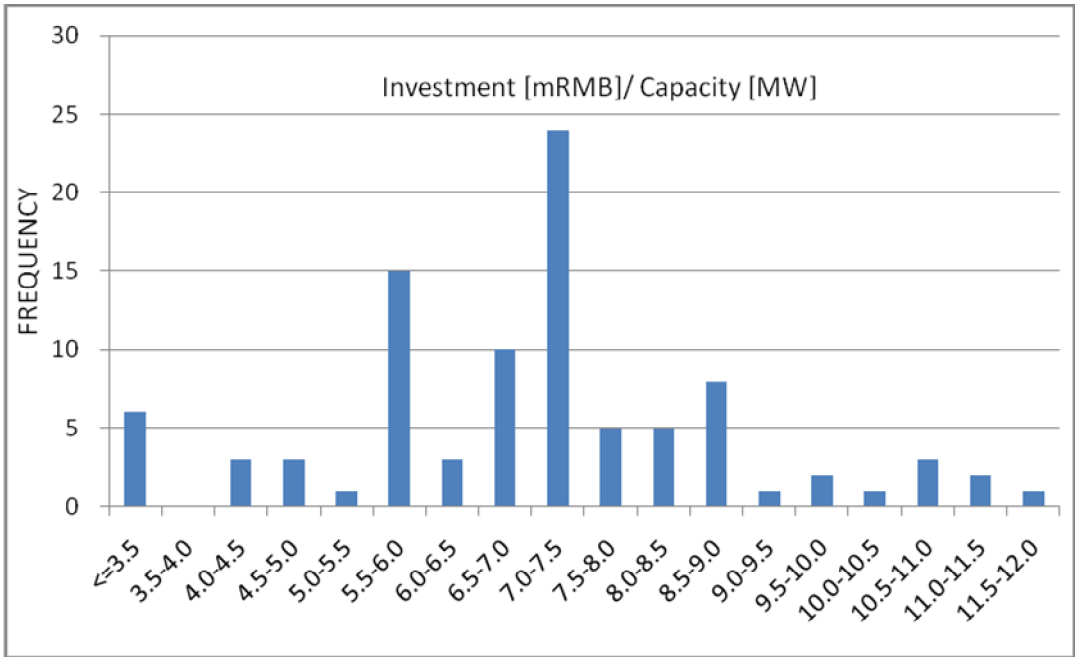
Response by Project Participant

All the input values of IRR are from the Feasibility Study Repot (FSR), which has been appro-ved by authorities. The FSR was finalized in October 2006, when the incentive of CDM was considered to proceed with the project. This meets the requirement of EB 38 paragraph 54 (c).

Response by TÜV SÜD

The input values have been carefully checked and are all based on a third party assessment (The Feasibility Study Report issued by Luoyang heavy industry mine machinery engineering design institute).

To provide additional certainty that the figures used for the IRR calculation are applicable we are comparing the main parameters with other CDM projects of the same type. For the Yulong WHR project the specific investment per power is 6.65 Mio. RMB / MW and the specific opera-tional costs per year are 1.14 Mio. RMB / MW. The average specific investment per power in China (based on the evaluation of 120 waste recovery projects in China that applied or are ap-plying for CDM) is 7.273 Mio. RMB / MW (see figure below); the average specific operational costs are 1,069 Mio. RMB / MW. For the operational hours the average is 6415 h whereas Yu-long is calculated with 6216 h, the grid tariff is 0.326 RMB / kWh compared to 0.335 RMB / kWh as the Chinese average. Hence, it can be confirmed that the Pingyuan project does not apply unreasonable assumptions.



Specific Investment of Waste Heat Recovery Projects in China (Source: UNFCCC/TÜV SÜD)

Referring to issue 2

Response by Project Participant

In the PDD the start date of project is 20 Nov 2006, when the Report of Work Commencement of Yulong WHR project was issued. In the report it sets the construction start date as 9 Decem-ber 2006. In the final validation report the actual construction date 9 December 2006 was desc-ribed as the project start date.

The FSR was finished in October 2006 and the General Contract on Project Construction (in-cluding terms on the equipments purchase and installation) was signed in Nov, 2006. Construc-tion started in December 2006. Evidence of serious CDM consideration was dated prior to all these dates.

Response by TÜV SÜD

The starting date of a CDM project activity is the date on which the implementation or

construction or real action of a project activity begins.

The FSR was issued in October 2006, the report of the construction starting was issued 20/11/2006.

This can be considered as the first action, when the project was not “revisable” anymore. For that reason the starting date in the PDD I correct. The starting date mentioned in the Validation Report can be considered as a typing mistake. The date was corrected in the revised validation report.

Referring to issue 3

Response by Project Participant

In the Section B.4 of the PDD, it has been discussed that alternatives 3, 4 and 5 face the bar-riers of laws and regulations, resources insufficiency, technology and finance. Thus these alter-natives are excluded when identifying the baseline scenario. Alternative 1 and 2 are the only two possible base-line scenarios that cannot be eliminated due to prohibitive barriers. These two scenarios thus have to be compared with an economic comparison in order to determine the appropriate baseline sce-nario. In accordance with the investment comparison analysis (Option II), alternative 1 (the project activity) is considered financially less attractive than alternative 2 (Equivalent electricity import from the grid) if the NPV is negative. As can be seen from the submitted excel file, the NPV is minus 7.04 million Yuan. Thus, in line with the methodology, it can be concluded by this economic analysis that scenario 2 is the most plausible baseline sce-nario.

The baseline scenario has been identified as alternative 2 “continuation of equivalent import of elec-tricity from Central China Power Grid”.

Response by TÜV SÜD

In the Section B.4 within the PDD, alternatives 3, 4 and 5 face the barriers of laws and regula-tions, resources insufficiency, technology and finance. They have been discussed already.

The alternatives 1 and 2 comply with all legal and regulatory requirements. As the baseline scenario of alternative 2, there is no specific comparable method for choosing the most finan-cially attractive alternative.

According to “Tool for the demonstration and assessment of additionality /Version 03”, bench-mark analysis was used for the investment analysis of this project. As far as alternatives 1, the equity IRR without CDM revenues is 7.73% only, which is lower than the benchmark value (12%). It is con-cluded the project is not attractive from a financial point of view. It has been dis-cussed in details in Section B.5 within the PDD. On the contrary, alternative 2 is the continued situation of the present state. It needs no additional investment and faces no prohibitive barrier and is also most economi-cally attractive, so it is considered as the baseline scenario.

Referring to issue 4

Response by Project Participant

The calculation process of emission factor calculation used in the PDD follows the Emission factor published by the DNA of China. However, the emission factors (tc/TJ) of coke and refinery gas do not apply IPCC 2006 default value while the emission factor of all other fuels apply in the publication by the DNA of China. To follow EB's requirement of using latest IPCC default value, the PDD updated these two data with IPCC 2006 default values, resulting a more accurate EFy result.

Response by TÜV SÜD

To provide additional certainty that the values calculated from the Chinese DNA (NDRC) are applicable we have recalculated the Emission Factors. The NDRC applied different values for coke and refinery gas, that have not been consistent with the IPCC 2006 default values. Accor-ding to IPCC2006,the emission factor of coke should be 29.2 tC/TJ instead of 25.8 at NDRC. According to IPCC2006, the emission factor of refinery gas should be 15.7 tC/TJ, instead of 18.2 in NDRC.

TÜV SÜD recalculated the values and calculated an EFOM of 1,2909 tCO2/MWh. This value is consistant with the value the Project Participant (PP) is applying. It can be considered more accurate. The difference between the EFBM calculated by the PP and the NDRC can be ex-plained by the same issue.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

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

The following table presents all key information on this process:

webpage: http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=3219&Ebene1_ID=26&Ebene2_ID=973&mode=1	
Starting date of the global stakeholder consultation process: 2007-06-20	
Comment submitted by: none	**Issues raised:** -
Response by TÜV SÜD: -	

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5 VALIDATION OPINION

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

Yulong Tongli WHR Project.

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

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

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

Munich, 2008-05-29

Certification Body “climate and energy”
TÜV SÜD Industrie Service GmbH

Munich, 2008-05-29

Assessment Team Leader

Industrie Service

ANNEX 1: VALIDATION PROTOCOL

Industrie Service

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
A. General description of project activity				
A.1. Title of the project activity				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	1, 2,	The used project title identifies the CDM activity by the name of the company and the location as well as the project activity.	þ	þ
A.1.2. Are there any indication concerning the revision number and the date of the revision?	1, 2	The available PDD indicated as version YL-01dated 02/03/07.	þ	þ
A.1.3. Is this consistent with the time line of the project's history?	1, 2	The same version has been published for GSP since June. 20th, 2007 at the DOE's website: www.Netinform.net.	þ	þ
A.2. Description of the project activity				
A.2.1. Is the description delivering a transparent overview of the project activities?	1, 2, 6, 8, 11, 12, 13, 15, 16, 17	The project is to effectively utilize the low temperature waste heat of the exit gases from Suspension Preheater (SP) and Air Quenching Chamber (AQC), the project entity intends to build one 9MW captive power station for the 5,000t/d clinker production line. The project activity includes installation of 2 WHR boilers (one WHR boiler for SP exit gas and one WHR boiler for AQC exit gas), one steam turbine and one generator. The total power capacity of steam turbine generator is 9MW. The project has begun to construct since Dec. 10th, 2006, which is planned to put into the test operation on July 23rd, 2007. **Corrective Action Request No.1.** The time schedule has to be completed. The time of FSR and Commissioning has to be added.	**CAR 1**	þ
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1, 2, 6, 8, 11, 12, 13,	The project activity is the displacement of purchasing electricity by coal fired power plants with electricity generated by utilizing the waste heat from the rotating kiln of cement production. The following data deliver evidences for the project activity: - Feasibility study (approved on March 13th, 2007 by Zhu-	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
	15, 16, 17	madian City Development and Reform Commission) - Environmental Impact Report Table (approved on May 10th, 2006 by Zhumadian City Environment Protection Bureau). These data have been evidenced during the audit. The required data are delivered in the PDD. The statistical background has been reviewed with official documentation (Approved feasibility Study Report, China Electric Power Yearbooks 2003-2006).		
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1, 6, 7, 8, 9	The required data and background are delivered in the PDD and have been evidenced during the audit.	þ	þ
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1, 6, 7, 8, 9	Yes, all the information presented consistent with details provided by further chapters of the PDD.	þ	þ
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?	1	The required form is applied correctly.	þ	þ
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	1	Both Zhumadian Yulong Tongli Cement Co., Ltd.and Carbon Asset Management Sweden AB are listed in A.3. Table.	þ	þ
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1	Yes, it is.	þ	þ
A.4. Technical description of the project activity				
A.4.1. Location of the project activity				
A.4.1.1. Does the information provided on the location of the project activity allow for a	1	The project location could be clearly identified in the PDD. The project activity is located in Queshan County, Zhumadian City,	**CAR 2**	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	clear identification of the site(s)?		Henan Province, China. The geographical coordinates are given. **Corrective Action Request No.2.** The geographical coordinates should be specified including geographical seconds.		
A.4.1.2.	How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	1, 7, 9	The feasibility report and EIA were approved by NDRC and EPB of Henan Province on March 13th, 2007 and on May 10th, 2006 respectively.	þ	þ
A.4.2.	*Category(ies) of project activity*				
A.4.2.1.	To which category(ies) does the project activity belonging to? Is the category correctly identified and indicated?	1, 2	The project activity falls into scope 1, which has been clearly identified in the PDD.	þ	þ
A.4.3.	*Technology to be employed by the project activity*				
A.4.3.1.	Does the technical design of the project activity reflect current good practices?	1, 6, 8	Yes. The technology design of the project activity reflects current good practice, though the working efficiency of key apparatus and operation systems of the domestic equipment are still much lower than the imported ones. For this project, the owner chooses CITIC Heavy Machinery inc. as supplier of the Steam-additional condensing turbine and Generator.	þ	þ
A.4.3.2.	Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	1, 2, 6, 7, 8, 9	Yes, the project activity comprises the recovering and utilization of waste heat to generate electricity for the substitution of grid supplied electricity mainly from coal fired plants. There is no doubt that this technology will reduce the GHG emissions significantly.	þ	þ
A.4.3.3.	Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	1, 6, 8	The whole operation system together with key facilities are designed and manufactured by CITIC Heavy Machinery inc. and Hangzhou Boiler Group Co., Ltd, Obviously, a technology transfer isn't required.	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
A.4.3.4. Is the technology implemented by the project activity environmentally safe?	1, 6, 8	The project activity is electricity generation by utilizing the waste heat from the rotating kiln of the cement production. Through the recovery process of waste heat, the harmful emissions (including SO_x, NO_x and floating particles) could be significantly reduced.	þ	þ
A.4.3.5. Is the information provided in compliance with actual situation or planning?	1, 6	The main equipments and operation procedure are listed in Table A 4-1 of the PDD. The main equipments have been installed which have been verified on-site.	þ	þ
A.4.3.6. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	1, 6, 13, 14	Yes. The project adopts domestic advanced technology and equipments. It will improve the working efficiency prominently.	þ	þ
A.4.3.7. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 6, 8, 13, 14, 15	We do not expect that there will be a substitution because the turbines and the other equipment have been newly commissioned and installed. The life cycle of boilers and turbine are under normal circumstances longer than the project period.	þ	þ
A.4.3.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	1, 6, 12, 13, 14, 15	Yes, because of the use of domestic advanced technology and instruments, there are additional training needs to guarantee safe operation during the life time of the project.	þ	þ
A.4.3.9. Is information available on the demand and requirements for training and maintenance?	1, 6, 12, 13	The operators have been planed to be trained to acquire experience at Jilin Liaoyuan Jingang Cement. The training plan has been reviewed by the DOE on site. The training report card of Zhumadian Yulong Tongli Pure Low Temperature Waste Heat Power Generation station workers has been provided to the audi-	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
			tor on-site.		
A.4.3.10.	Is a schedule available for the implementation of the project and are there any risks for delays?	1, 14, 16	The main construction has been finished. The project is planned to put into operation on July 23rd, 2007. So, there would be no any risks for delays.	þ	þ
A.4.4.	*Estimated amount of emission reductions over the chosen crediting period*				
A.4.4.1.	Is the form required for the indication of projected emission reductions correctly applied?	1, 2, 3	The project emission reductions are shown in chapter A.4.4 Table according to the guidelines.	þ	þ
A.4.4.2.	Are the figures provided consistent with other data presented in the PDD?	1, 2, 3	**Corrective Action Request No.3.** The crediting period will start after registration of this project, so the starting and end date should be revised. Please correct the starting date of the project activity in chapter C.1.1. as well because the earliest date of starting construction, implementation or operation has to be indicated according to EB 33.	**CAR 3**	þ
A.4.5.	*Public funding of the project activity*				
A.4.5.1.	Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1, 6	According to the investment records reviewed by the DOE there is no public funding, all costs are covered by private capital and bank loan.	þ	þ
A.4.5.2.	Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1, 6	The statements are consistent with PDD.	þ	þ
B. Application of a baseline and monitoring methodology					
B.1. Title and reference of the approved baseline and monitoring methodology					
B.1.1.1.	Are reference number, version number,	1, 2	The ACM0004 methodology (version 02) is applied to this project.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	and title of the baseline and monitoring methodology clearly indicated?		It is clearly indicated at B.1 of the PDD.		
B.1.1.2.	Is the applied version the most recent one and / or is this version still applicable?	1, 2	The 2nd version of ACM0004 is the latest one.	þ	þ
B.2. Justification of the choice of the methodology and why it is applicable to the project activity					
B.2.1.1.	Is the applied methodology considered the most appropriate one?	1, 2	Besides ACM0004, AM0024 "Baseline methodology for greenhouse gas reductions through waste heat recovery and utilisation for power generation at cement plants" seems also to be applicable. However, the project activity fulfils the applicability criteria of ACM0004; hence, the project developer chose this methodology. As this methodology is the latest one and refers to the latest revision of ACM0002 the DOE agrees with the project developer that this will be the more appropriate methodology.	þ	þ
B.2.2.	Criterion 1: The applicability is limited to project activities that generates electricity from waste heat, waste pressure or the combustion of waste gases in industrial facilities	1, 2	Applicability checklist / Yes / No Criterion discussed in the PDD? / Yes Compliance provable? / Yes Compliance verified? / Yes Through recovering and utilizing the waste heat from the rotating kiln of cement clinker production line, the project generates electricity to replace the power imported from Central China Power Grid, a grid that delivers electricity mainly generated with fossil fuels.	þ	þ
B.2.3.	Criterion 2: The project activity has to displace electricity generation with fossil fuel in the electricity grid or captive electricity generation from fossil fuels	1, 2	Applicability checklist / Yes / No Criterion discussed in the PDD? / Yes Compliance provable? / Yes Compliance verified? / Yes	þ	þ

<table>
<tr><th colspan="2">CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td colspan="2"></td><td></td><td>Through recovering and utilizing the waste heat from the rotating kiln of cement clinker production line, the project generates electricity to replace the power imported from Central China Power Grid, a grid that delivers electricity mainly generated with fossil fuels.</td><td></td><td></td></tr>
<tr><td>B.2.4.</td><td>Criterion 3:
After the implementation of the project activity there has to be done no fuel switch in the process, where the waste heat or pressure or the waste gas is produced.</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>The technology and equipment ensures that there’s no fuel switch in the process.</td><td>þ</td><td>þ</td></tr>
<tr><td>B.2.5.</td><td>Criterion 4:
If capacity expansion of an existing facility is planned during the crediting period, the added capacity must be treated as a new facility.</td><td>1, 2</td><td><table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>N.A.</td></tr><tr><td>Compliance provable?</td><td>N.A.</td></tr><tr><td>Compliance verified?</td><td>N.A.</td></tr></table>The project activity is an installation of a new power plant. Hence, this section is not applicable.</td><td>þ</td><td>þ</td></tr>
<tr><td colspan="6">B.3. Description of the sources and gases included in the project boundary</td></tr>
<tr><td colspan="6">Integrate the required amount of sub-checklists for sources and gases as given by the methodology applied and comment on at least every line answered with “No”</td></tr>
<tr><td>B.3.1.</td><td>Source:
Grid electricity generation
Gas(es): CO2
Type: Baseline Emissions</td><td>1, 2</td><td><table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr></table></td><td>þ</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Consistency with monitoring plan? — Yes		
B.3.2. Source: Captive electricity generation Gas(es): CO2 Type: Baseline Emissions	1, 2	Boundary checklist: Source and gas(es) discussed in the PDD? N.A.; Inclusion / exclusion justified? N.A.; Explanation / Justification sufficient? N.A.; Consistency with monitoring plan? N.A. (Yes / No) The project activity is a new facility, hence, this parameter needs not be considered.	þ	þ
B.3.3. Source: On-site fossil fuel consumption due to the project activity Gas(es): CO2 Type: Project Emissions	1, 2	Boundary checklist: Source and gas(es) discussed in the PDD? Yes; Inclusion / exclusion justified? Yes; Explanation / Justification sufficient? Yes; Consistency with monitoring plan? Yes (Yes / No)	þ	þ
B.3.4. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	1, 2, 18	The project boundary includes: - the rotating kiln generating the waste heat; - heat recovery boilers (SP and AQC boilers), waste heat generator unit and auxiliary facilities; - all power plants connected to the defined electricity grid Some related documents and evidence have been reviewed on site. **Clarification Request No. 1.** The grid connection contract should be provided to the validator.	**CR 1**	þ
B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario				
The baseline scenario shall be identified using procedure for Identification of the baseline scenario described in the approved consolidated method-				

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
ology ACM0004 "Consolidated baseline methodology for waste gas and/or heat and/or pressure for power generation" version 02.				
B.4.1. Have all technically feasible baseline scenario alternatives (a) - (f) to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?	1, 2, 3	The following baseline scenarios are discussed: - The proposed project activity not undertaken as a CDM project activity - Continuation of equivalent import of electricity from Central China Power Grid. - New fossil fuel based on captive power plant - New hydro power station with installed capacity of 9MW - Other uses of waste heat These scenarios are required by methodology, it can be found that "Continuation of equivalent import of electricity from Central China Power Grid" is the most likely baseline scenario. **Corrective Action Request No.4.** "Baseline scenario 1" should be described in accordance with the methodology ACM0004. "WHR for power generation project" should be deleted in the revised PDD.	**CAR 4**	þ
B.4.2. Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?	1, 2, 3	During the site visiting, coal proved to be the only available source at project site. However, according to Chinese national regulations, installation of coal-fired power plants of less than 50 MW is not permitted. Therefore, the related scenarios are not the baseline scenario alternatives.	þ	þ
B.4.3. Have applicable regulatory or legal requirements been identified?	1, 6, 8	There are no specific national regulations or legal requirements on treating with the waste heat from clinker production.	þ	þ
B.4.4. If baseline scenario is captive power generation (Option 1), is the estimated boiler efficiency determined due to Option A or B?	1	There's no existing captive power plant, hence, this section is not applicable.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
B.4.5.	If the baseline scenario is grid power imports (Option 2), is the Emission Factor calculated as in ACM0002?	1, 3, 6	It is demonstrated and evidenced that the grid-power-import is the baseline scenario for the project activity. The calculation processes are expounded in B.6.1 and Annex 3 of the PDD. However, some faults are detected: **Corrective Action Request No.5.** The calculation of the grid factor is wrong and the calculation in the Word version and the PDF version is different. Please correct and clarify. Please also deliver the evidence that CDM has been considered before construction.	**CAR 5**	þ
B.4.6.	If the baseline scenario includes both captive and imported power (Option 3), is the emission factor weighted correctly?	1	There's no existing captive power plant, hence, this section is not applicable.	þ	þ
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):					
B.5.1.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1, 6	Yes, the analysis method identified appropriately. Additionality tool (version 3) provides 3 options. All of them are fully discussed in the PDD. Because the project activity generates financial benefits through the sales of electricity; the Option I is not applicable. The Option II is applicable to project whose alternatives are similar investment project. The alternative baseline scenario of the project is continuation of equivalent import of electricity from Central Power Grid rather than new investment projects. Therefore option II is not an appropriate method. So, option III is an appropriate method.	þ	þ
B.5.2.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	1	Referring to B.5.1 of protocol, this section is not applicable.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
B.5.3.	In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 6	Referring to B.5.1 of protocol, this section is not applicable.	þ	þ
B.5.4.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?	1, 6	Yes, the most suitable financial indicators are clearly identified.	þ	þ
B.5.5.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?	1, 6	The calculation of financial figures for IRR is done for the project activity without and with the revenues from the sales of CERs. **Clarification Request No. 2.** An excel sheet that allows the recalculation (including the formula) should be delivered to the validator.	**CR 2**	þ
B.5.6.	In case of Option II or Option III: Is the analysis presented in a transparent manner including publicly available proofs for the utilized data?	1, 6, 21	Yes. The proof of the financial benchmark rate of return (after tax) of the Chinese Cement industry accounting for 12% has been verified by the auditor.	þ	þ
B.5.7.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?	1, 6	The project owner encounters both technology and investment barriers which are demonstrated in the PDD.	þ	þ
B.5.8.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1, 6	**Clarification Request No. 3.** The quoted evidence regarding the barriers has to be delivered as PDF or hard copy to the validator.	**CR 3**	þ
B.5.9.	In case of applying step 3 (barrier analy-	1, 2,	Yes, among the 5 alternatives identified in section 4, at least the	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	sis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	6	alternative 2 (Continuation of import of equivalent electricity from Central China Power Grid) would not be prevented by the above mentioned barriers.		
B.5.10.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?	1, 2	There is no similar plant in Henan province. Among the 254 cement plants in the Henan province, the project activity is the first of this kind implementing the WHR project for power generation.	þ	þ
B.5.11.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?	1, 2	Yes, as facing barriers and lacking financial attraction, the project would not be implemented without the CDM component.	þ	þ
B.5.12.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hurdles or other identified barriers?	1, 2	N.A	þ	þ
B.6. Emissions reductions					
B.6.1.	*Explanation of methodological choices*				
B.6.1.1.	Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	1, 2	The following steps are described in a transparent manner: --Calculation of the baseline emission due to the displacement of electricity -- Calculation of the project emission --Calculation of leakage emission --Calculation of emission reduction.	þ	þ
B.6.1.2.	Is every selection of options offered by the methodology correctly justified and is this	1, 2, 6	Yes, the justification has been fully discussed and demonstrated in the PDD.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	justification in line with the situation verified on-site?				
B.6.1.3.	Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2, 3	Yes, the formula quoted from methodology is used. According to the feasibility study report, there's no fossil fuel is used for generation start-up, in emergencies or providing additional heat. Construction Phase The Project Activity gives rise to leakage emissions from the initial manufacture of the equipment and construction. It is assumed that the emissions caused by this activity are far less than that for other sources of generation included in the baseline. Therefore no formulae for estimating leakage due to construction are required here. Operations Phase There is a little electricity used for start up from the grid, but the Project is not displacing grid electricity and therefore the leakage from the inside the fence facility within the Henan Grid is considered negligible. .Therefore leakage emissions are zero.	þ	þ
B.6.1.4.	Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2, 3	Yes, they are.	þ	þ
B.6.1.5.	Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2	According to the methodology, the leakage needs not be considered.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
B.6.1.6.	Are the formulae required for the determination of emission reductions correctly presented?	1, 2, 3	Yes, they are.	þ	þ
B.6.2.	*Data and parameters that are available at validation*				
B.6.2.1.	Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1, 2	Please see B.4.5.	…see B.4.5	þ
B.6.2.2.	Parameter Title: EF_i Carbon emissions factor of fuel (estimation of project emissions)	1, 2	Data Checklist / Yes / No Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	þ	þ
B.6.2.3.	Parameter Title: Hr Average plant efficiency	1, 2	Data Checklist / Yes / No Title in line with methodology? N.A. Data unit correctly expressed? N.A. Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided? N.A. Has this value been verified? N.A. Choice of data correctly justified? N.A.	þ	þ

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<tr><td></td><td></td><td><table><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table></td><td></td><td></td></tr>
<tr><td>B.6.2.4. Parameter Title:
EF_y
CO2 emission factor of the grid</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.5. Parameter Title:
$EF_{OM,y}$
CO2 operating margin emission factor of the grid</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.6. Parameter Title:
$EF_{BM,y}$
CO2 build margin emission factor of the grid</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr></table></td><td>þ</td><td>þ</td></tr>
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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.6.2.7. Parameter Title: $F_{i,j,y}$ Amount of each fossil fuel consumed by each power source / plant	1, 2	Data Checklist / Yes / No Title in line with methodology? N.A. Data unit correctly expressed? N.A. Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided? N.A. Has this value been verified? N.A. Choice of data correctly justified? N.A. Measurement method correctly described? N.A.	þ	þ
B.6.2.8. Parameter Title: $COEF_{i,k}$ CO2 emission factor of each fuel type and each power source / plant	1, 2	Data Checklist / Yes / No Title in line with methodology? N.A. Data unit correctly expressed? N.A. Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided? N.A. Has this value been verified? N.A. Choice of data correctly justified? N.A. Measurement method correctly described? N.A.	þ	þ

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<tr><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>B.6.2.9. Parameter Title:
GEN $_{j,y}$
Electricity generation of each power source / plant</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.10. Parameter Title:
$EF_{CO2,i}$
CO2 emission factor of fuel used for captive power generation</td><td>1, 2</td><td><table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Choice of data correctly justified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr></table>
The project activity does not displace a captive power generation, then, this section is not applicable.</td><td>þ</td><td>þ</td></tr>
<tr><td>B.6.2.11. Parameter Title:
$Eff_{captive}$</td><td>1, 2</td><td></td><td>þ</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	Energy efficiency of captive power plant (estimation of baseline emissions factor in case of captive power)		Data Checklist / Yes / No Title in line with methodology? N.A. Data unit correctly expressed? N.A. Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided? N.A. Has this value been verified? N.A. Choice of data correctly justified? N.A. Measurement method correctly described? N.A. The project activity does not displace a captive power generation; hence, this section is not applicable.		
B.6.3.	*Ex-ante calculation of emission reductions*				
B.6.3.1.	Is the projection based on the same procedures as used for future monitoring?	1, 2, 3	Yes, it is.	þ	þ
B.6.3.2.	Are the GHG calculations documented in a complete and transparent manner?	1, 2, 3	Yes, they are.	þ	þ
B.6.3.3.	Is the data provided in this section consistent with data as presented in other chapters of the PDD?	1, 2, 3	The data in this section are consistent with those in other chapters of the PDD.	þ	þ
B.6.4.	*Summary of the ex-ante estimation of emission reductions*				
B.6.4.1.	Will the project result in fewer GHG emissions than the baseline scenario?	1, 3	The project activity is going to replace the electricity supplied from the Central China Power Grid, a grid mainly consisting of coal-fired plants. There's no doubt that fewer GHG emission will be resulted in.	þ	þ
B.6.4.2.	Is the form/table required for the indication of projected emission reductions correctly	1, 3	Yes, the required form is applied.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	applied?				
B.6.4.3.	Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1, 3	The project has begun to construct since Dec. 10th, 2006, which is planned to put into the test operation on July 23rd, 2007. Because 15 years of lifetime is expected, fixed crediting period of 10 years is chosen and seems reasonable.	þ	þ
B.6.4.4.	Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1, 3	Yes, it is.	þ	þ
B.7. Application of the monitoring methodology and description of the monitoring plan					
B.7.1.	*Data and parameters monitored*				
B.7.1.1.	Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	1, 2	**Corrective Action Request No.6.** The parameters required according to the methodology to monitor the project emission should be completely included in the revised PDD and the justification of each parameter needs to be given in tables. If there are parameters not needed please mark this in the adequate table as "not applicable".	**CAR 6**	þ
Integrate the required amount of sub-checklists for monitoring parameter and comment on any line answered with "No"					
B.7.1.2.	Parameter Title: Q_i Volume of the auxiliary fuel used by project activity (estimation of project emissions)	1, 2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr></table>	þ	þ

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td></td><td></td><td><table>
<tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr>
<tr><td>QA/QC procedures described?</td><td>N.A.</td></tr>
<tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr>
</table></td><td></td><td></td></tr>
<tr><td>B.7.1.3. Parameter Title:
NCV_f
Net Calorific Value of fuel
(estimation of project emissions)</td><td>1, 2</td><td><table>
<tr><th>Monitoring Checklist</th><th>Yes / No</th></tr>
<tr><td>Title in line with methodology?</td><td>N.A.</td></tr>
<tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr>
<tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr>
<tr><td>Source clearly referenced?</td><td>N.A.</td></tr>
<tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr>
<tr><td>Has this value been verified?</td><td>N.A.</td></tr>
<tr><td>Measurement method correctly described?</td><td>N.A.</td></tr>
<tr><td>Correct reference to standards?</td><td>N.A.</td></tr>
<tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr>
<tr><td>QA/QC procedures described?</td><td>N.A.</td></tr>
<tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr>
</table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.7.1.4. Parameter Title:
EG_{Gen}
Total electricity generated
(estimation of electricity generation by project activity)</td><td>1, 2</td><td><table>
<tr><th>Monitoring Checklist</th><th>Yes / No</th></tr>
<tr><td>Title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Appropriate description of parameter?</td><td>Yes</td></tr>
<tr><td>Source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Correct value provided for estimation?</td><td>No</td></tr>
<tr><td>Has this value been verified?</td><td>Yes</td></tr>
<tr><td>Measurement method correctly described?</td><td>Yes</td></tr>
<tr><td>Correct reference to standards?</td><td>Yes</td></tr>
</table></td><td>CAR 7</td><td>þ</td></tr>
</table>

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td>Indication of accuracy provided?</td><td>Yes</td></tr>
<tr><td>QA/QC procedures described?</td><td>Yes</td></tr>
<tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr>
</table>

<u>Corrective Action Request No.7.</u>
- The value of data applied for the emission reduction calculation in section B. 5 of the PDD shall be presented in the table;
- The accuracy of the electricity meter, the calibration procedure, the calibration standard and the related process of monitoring, recording and archiving data shall be described in the revised PDD.
</td><td></td><td></td></tr>
<tr><td>B.7.1.5. Parameter Title:
EG_{AUX}
Auxiliary electricity
(including electrical energy utilized by the power generating equipment in the project boundary)</td><td>1, 2</td><td>
<table>
<tr><th>Monitoring Checklist</th><th>Yes / No</th></tr>
<tr><td>Title in line with methodology?</td><td>Yes</td></tr>
<tr><td>Data unit correctly expressed?</td><td>Yes</td></tr>
<tr><td>Appropriate description of parameter?</td><td>Yes</td></tr>
<tr><td>Source clearly referenced?</td><td>Yes</td></tr>
<tr><td>Correct value provided for estimation?</td><td>No</td></tr>
<tr><td>Has this value been verified?</td><td>Yes</td></tr>
<tr><td>Measurement method correctly described?</td><td>Yes</td></tr>
<tr><td>Correct reference to standards?</td><td>Yes</td></tr>
<tr><td>Indication of accuracy provided?</td><td>Yes</td></tr>
<tr><td>QA/QC procedures described?</td><td>Yes</td></tr>
<tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr>
</table>
</td><td>See B.7.1.4</td><td>þ</td></tr>
<tr><td>B.7.1.6. Parameter Title:</td><td>1, 2</td><td></td><td>See</td><td>þ</td></tr>
</table>

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<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td>EG_y
Net electricity supplied to facility</td><td></td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table></td><td>B.7.1.4</td><td></td></tr>
<tr><td>B.7.1.7. Parameter Title:
Q_{WG}
Flow rate of waste gas</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.7.1.8. Parameter Title:
NCV_{WG}</td><td>1, 2</td><td></td><td>þ</td><td>þ</td></tr>
</table>

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<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>PPD in GSP</th><th>Final PDD</th></tr>
<tr><td>Net Calorific Value of the waste gas</td><td></td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table></td><td></td><td></td></tr>
<tr><td>B.7.1.9. Parameter Title:
Q_i
Flow rate of fuel i</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr><tr><td>Appropriate description of parameter?</td><td>N.A.</td></tr><tr><td>Source clearly referenced?</td><td>N.A.</td></tr><tr><td>Correct value provided for estimation?</td><td>N.A.</td></tr><tr><td>Has this value been verified?</td><td>N.A.</td></tr><tr><td>Measurement method correctly described?</td><td>N.A.</td></tr><tr><td>Correct reference to standards?</td><td>N.A.</td></tr><tr><td>Indication of accuracy provided?</td><td>N.A.</td></tr><tr><td>QA/QC procedures described?</td><td>N.A.</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N.A.</td></tr></table></td><td>þ</td><td>þ</td></tr>
<tr><td>B.7.1.10. Parameter Title:
NCV_i
Net calorific value of fuel i</td><td>1, 2</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>N.A.</td></tr><tr><td>Data unit correctly expressed?</td><td>N.A.</td></tr></table></td><td>þ</td><td>þ</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
		Appropriate description of parameter? N.A. Source clearly referenced? N.A. Correct value provided for estimation? N.A. Has this value been verified? N.A. Measurement method correctly described? N.A. Correct reference to standards? N.A. Indication of accuracy provided? N.A. QA/QC procedures described? N.A. QA/QC procedures appropriate? N.A.		
B.7.1.11. Parameter Title: Use the latest approved version of ACM0002 to calculate the grid emission factor. If the power generation capacity of the project plant is less or equal to 15 MW, project participants may use the average CO2 emission factor of the electricity system, as referred to in option (d) in step 1 of the baseline determination in ACM0002. $EF_{grid,y}$	1, 2, 3	The ex-ante approach from ACM 0002 (ver. 6) is adopted for the $EF_{grid,y}$ estimation. The spreadsheet has been reviewed by the auditor on site. Some faults have been detected; therefore, it has to be updated. Whereas, this parameter need not be monitored during the crediting period.	See CAR5	þ
B.7.2. Description of the monitoring plan				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisoned situation?	1, 2	The managing structure is clearly depicted in the PDD. All monitoring data will be recorded by appointed data collectors and verified by QC supervisors. In case the data exceed the tolerance, authorized quality director and general manager will be reported for the necessary adjustment.	þ	þ
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 2	See B.7.2.1. of the protocol.	þ	þ

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1, 2	Yes, it is.	þ	þ
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisoned monitoring provisions?	1, 2	The monitoring procedures are clearly described in section B.7, A monitoring sketch has been provided in the Annex 4. **Corrective Action Request No.8.** The third party calibration, frequency of calibration and accuracy should be mentioned. A principal diagram of the monitoring system has to be included (incl: back-up lines and all connections to the grid).	**CAR 8**	þ
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)				
B.8.1.1. Is there any indication of a date when the baseline was determined?	1, 2	The baseline is determined on Nov. 20th, 2006.	þ	þ
B.8.1.2. Is this consistent with the time line of the PDD history?	1, 2	Yes. The PDD is prepared with the latest available data at that time (China Electric Power Yearbook 2001-2005, China Energy Statistical Yearbook 2003-2005 as well as IPCC 2006).	þ	þ
B.8.1.3. Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1, 2	Yes. The persons from entity indicated in the PDD are also the ones being interviewed for baseline verification.	þ	þ
B.8.1.4. Is information provided whether this person / entity is also considered a project participant?	1, 2	No. They aren't the investment party of this project.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
C. Duration of the project activity / crediting period					
C.1. Duration of the project activity					
C.1.1.	Are the project's starting date and operational lifetime clearly defined and reasonable?	1	The expected operational life time of the project activity exceeds 15 years.	þ	þ
C.2. Choice of the crediting period and related information					
C.2.1.	Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1	More than 15 years of life time is expected, hence, the choice of fixed crediting period of 10 years makes sense.	þ	þ
D. Environmental impacts					
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts					
D.1.1.	Has the analysis of the environmental impacts of the project activity been sufficiently described?	1, 8, 9	Yes, the environmental impacts of the project activity such as air pollution, thermal pollution, acoustical pollution and water pollution have been clearly described.	þ	þ
D.1.2.	Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1, 8, 9	Yes, EIA is a must in P. R. China for new power projects. And it was approved by Luoyang Environmental Protection Bureau. Those documents have been reviewed by the DOE.	þ	þ
D.1.3.	Will the project create any adverse environmental effects?	1, 8, 9	Referring to the EIA and the approval of EIA, the project will create no negative environmental impacts.	þ	þ
D.1.4.	Were transboundary environmental impacts identified in the analysis?	1, 8, 9	The proposed project activity locates within China. Hence, this section is not applicable.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party					
D.2.1.	Have the identified environmental impacts been addressed in the project design sufficiently?	1, 8, 9	Referring to the EIA and the approval of the EIA, the project activity will reduce GHGs emissions. It will have no negative impact on the ambient air quality, reduce effects of thermal pollution, have no obvious impact on the water environment, and will minimize noise pollutions.	þ	þ
D.2.2.	Does the project comply with environmental legislation in the host country?	1, 8, 9	Yes.	þ	þ
E. Stakeholders' comments					
E.1. Brief description how comments by local stakeholders have been invited and compiled					
E.1.1.	Have relevant stakeholders been consulted?	1, 10, 11	Yes, the relevant stakeholders have been consulted via an open public meeting dated on June 2006 and March 2007 respectively. **Corrective Action Request No.9.** How were the stakeholders identified? How many people are effected (residents)? Please deliver the pictures of the meetings to the validator. There is no information about the meeting in June 2004 in the PDD.	**CAR 9**	þ
E.1.2.	Have appropriate media been used to invite comments by local stakeholders?	1, 10, 11	**Corrective Action Request No.10.** What kind of media was used to inform them (evidence)?	**CAR 10**	þ
E.1.3.	If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation	1, 10, 11	There are no regulations/laws in China for carrying out the stakeholder consultation process for this project activity.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
	process been carried out in accordance with such regulations/laws?				
E.1.4.	Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1, 10, 11	The participants' list and the minute of the meeting in December 2006 have been verified on site.	…see E.1.1.	þ
E.2. Summary of the comments received					
E.2.1.	Is a summary of the received stakeholder comments provided?	1, 10, 11	The summary of the comments from stakeholder are collected and records have been reviewed by the auditor.	þ	þ
E.3. Report on how due account was taken of any comments received					
E.3.1.	Has due account been taken of any stakeholder comments received?	1, 10, 11	Referring to the PDD and the evidence provided on site, all the received comments are positive.	þ	þ
F. Annexes 1 - 4					
F.1. Annex 1: Contact Information					
F.1.1.	Is the information provided consistent with the one given under section A.3?	1	Yes, it is.	þ	þ
F.1.2.	Is the information on all private participants and directly involved Parties presented?	1	Yes, it is.	þ	þ
F.2. Annex 2: Information regarding public funding					
F.2.1.	Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1	Pls. refer to A.4.5.1. of protocol.	þ	þ

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	PPD in GSP	Final PDD
F.2.2.	If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1	Not applicable.	þ	þ
F.3. Annex 3: Baseline information					
F.3.1.	If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	1, 3	Please see B.4.5.	þ	þ
F.3.2.	Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1, 3	See F.3.1.	þ	þ
F.3.3.	Does the additional information substantiate / support statements given in other sections of the PDD?	1, 3	See F.3.1.	þ	þ
F.4. Annex 4: Monitoring information					
F.4.1.	If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1	Please see B.7.2.4	þ	þ
F.4.2.	Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1	See F.4.1.	þ	þ
F.4.3.	Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1	See F.4.1	þ	þ

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Table 2 Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
Corrective Action Request No.1. Please complete the time schedule. Please add the time of FSR and Commissioning.	A.2.1.	The time of FSR and Commissioning has been added in the time schedule in the PDD.	þ This has been verified by the validation team in the final PDD.
Corrective Action Request No.2. The geographical coordinates should be specified including geographical seconds.	A.4.1.1.	The geographical coordinates have been specified including geographical seconds in PDD.	þ This has been verified by the validation team in the final PDD.
Corrective Action Request No.3. The crediting period will start after registration of this project, so the starting and end date should be revised. Please correct the starting date of the project activity in chapter C.1.1. as well because the earliest date of starting construction, implementation or operation has to be indicated according to EB 33.	A.4.4.2.	The start date of the crediting period has been revised.	þ This has been verified by the validation team in the final PDD.
Clarification Request No. 1. The grid connection contract should be provided to the validator.	B.3.4.	The documents will be sent to validator by EMS on 07/09/2007.	þ The validator has gotten the information of the comments of examination on the grid connection system of the pure low temperature waste heat captive power plant in Zhumadian Yulong Tongli Cement Co., ltd issued by Henan Province Power company, file No., Yu Dian Ji

			[2006] 1196#, dated 31st Dec. 2006.
Corrective Action Request No.4. "Baseline scenario 1" should be described in accordance with the methodology ACM0004. "WHR for power generation project" should be deleted in the revised PDD.	B.4.1.	"WHR for power generation project" has been deleted in the revised PDD.	þ This has been verified by the validation team in the final PDD.
Corrective Action Request No.5. The calculation of the grid factor is wrong and the calculation in the Word version and the PDF version is different. Please correct and clarify. Please also deliver the evidence that CDM has been considered before construction.	B.4.5.	The calculation of the grid factor has been corrected. The documents evidence that CDM has been considered before construction will be sent to validator by EMS on 07/09/2007.	þ The calculation of the grid factor has been verified by the validation team in the final PDD. The validator has got the agreement of CDM development which was signed by Zhumadian Yulong Cement Co., ltd and Shanghai Chuanji Investment Management Co., Ltd. on 08/09/2006 which is before the starting date of the proposed project.
Clarification Request No. 2. An excel sheet that allows the recalculation (including the formula) should be delivered to the validator.	B.5.5.	The excel sheet will be delivered to validator by Email.	þ The excel sheet has been verified by the validation team.
Clarification Request No. 3. The quoted evidence regarding the barriers has to be delivered as PDF or hard copy to the validator.	B.5.8.	Most of the quoted evidence as hard copy has been sent to validator and the rest will be validator by EMS on 07/09/2007.	þ The hard copies have been verified by the validator.
Corrective Action Request No.6. The parameters required according to the	B.7.1.1.	The parameters are totally included in the revised PDD.	þ This has been verified by the

methodology to monitor the project emission should be completely included in the revised PDD and the justification of each parameter needs to be given in tables. If there are parameters not needed please mark this in the adequate table as "not applicable".			validation team in the final PDD.
Corrective Action Request No.7. - The value of data applied for the emission reduction calculation in section B. 5 of the PDD shall be presented in the table; - The accuracy of the electricity meter, the calibration procedure, the calibration standard and the related process of monitoring, recording and archiving data shall be described in the revised PDD.	B.7.1.4.	The value of data applied for the emission reduction calculation in section B. 5 of the PDD has been presented in the table; The accuracy of the electricity meter, the calibration procedure, the calibration standard and the related process of monitoring, recording and archiving data have been described in the revised PDD.	þ This has been verified by the validation team in the final PDD.
Corrective Action Request No.8. The third party calibration, frequency of calibration and accuracy should be mentioned. A principal diagram of the monitoring system has to be included (incl: back-up lines and all connections to the grid).	B.7.2.4.	The third party calibration, frequency of calibration, accuracy and simplified electrical digram have been added in revised PDD.	þ This has been verified by the validation team in the final PDD.
Corrective Action Request No.9. How were the stakeholders identified? How many people are effected (residents)? Please deliver the pictures of the meetings to the validator. There is no information about the meeting in June 2004 in the PDD.	E.1.1.	The stakeholders are the people who will be affected by the operation of the project activity, mainly the residents around the site of the project and the workers in the company. There are few residents around the site of the project because where is far away from city central, so most of the stakeholders are the workers. The pictures of the survey have been added in the PDD.	þ The evidence has been verified by the validator.

		The evidence of the meeting in March 2007 in the PDD has been sent to validator.	
Corrective Action Request No.10. What kind of media was used to inform them (evidence)?	E.1.2.	The representatives and experts from local authorities were invited by phone. The sign up sheet will be sent to validator by EMS on 07/09/2007. The meeting of the representatives from the company and residents was announced by post and phone. The notification has been sent to validator. The survey was carried out by face to face consultation.	þ The notification has been verified by the validator.
Corrective Action Request No.11. Please revise the date of the PDD as it is the same as the GSP PDD		The version and date of the PDD have been updated.	þ
Corrective Action Request No.12. The total investment in the Excel sheet is not consistent. It is 122.91 mRMB in the upper part but 125.32 in the PDD and if you add up the components. Please delete the Huanghe Excel sheet.		The total investment includes fixed investment and circulating capital and the fixed investment not total investment is used in the Excel. The total investment has been added in the sheet for the sake of clarity.	þ The IRR calculation has been checked and is correct now.
Corrective Action Request No.13. Please include the sensitivity analysis into the IRR calculation sheet.		The sensitivity analysis has been added into the Excel sheet.	þ
Corrective Action Request No.14. Common practise, p13: It is not clear why the 36 projects using foreign technology are not similar to the project activity. As foreign technology may be more expensive it is not clear		The common practice has been modified and the document evidence has been sent to auditor by E-mail.	þ The quoted references have been checked by the local auditor and confirmed.

why more expensive technology can be economically used but cheap domestic technology not. The first of its kind argument is acceptable but the other Tongli projects should be included (… together with other CDM projects such as ….) because otherwise only one project will be additional.			
Corrective Action Request No.15. As the monitoring of the OM and BM is only necessary "if needed" as explained in the methodology these parameters should be deleted in the monitoring plan even if it is explained that it is not applicable. Otherwise it may be confusing.		The OM and BM have been deleted in section B7.	þ

ANNEX 2: INFORMATION REFERENCE LIST

Reference No.	Document or Type of Information
1.	Project Design Document for CDM project "Yulong Tongli WHR Project", version YH-01
2.	Consolidated baseline methodology for waste gas and/or heat and/or pressure for power generation ACM0004
3.	Tool for the demonstration and assessment of additionality, version 03
4.	Participant list of on-site interview, signed on July 13th, 2007
5.	Validation team: Mr. Jimmy Zhou CDM auditor, TÜV SÜD China, Guangzhou branch office Ms. Xuemei Li CDM auditor trainee, TÜV SÜD China, Guangzhou branch office Mr. Ling Liu CDM auditor trainee, TÜV SÜD China, Guangzhou branch office On-site interviews at the office in Yulong Tongli Cement Co., Ltd in Zhumadian City in Henan Province, China, conducted on July 13th, 2007 by auditing team of TÜV SÜD: Interviewed persons: Mr. Ronggang Ren Production Department Manager, Henan Tongli Groups Mr. Lei Xia General Engineer, Zhumadian Yulong Tongli Cement Co., Ltd Ms. Ranqiu Ma Vice General Manager, Shanghai chuanji investment Co., Ltd Ms. Zhiwei Ma Project Manager, Shanghai Chuanji Investment Management Co., Ltd. Mr. Jian Zhang Vice Manager, Zhumadian Yulong Cement Co., Ltd
6.	The feasibility study report of Zhumadian Yulong Tongli Cement Co., Ltd. New Dry-process Kilns Production Line WHR Power Generation project, issued by Luoyang heavy-industry mine machinery engineering design institute, dated Oct. 2006
7.	The record list of Henan Province Corporation Investment Projects, Zhumadian City Yulong Tongli Cement Co., Ltd. Pure Low Temperature Waste Heat Power Generation Project (9MW), project No., Yu Zhu Shi Yu Gong [2007] 00017, issued by Zhumadian City Development and Reform Commission, dated March 13th, 2007
8.	The Environment Impacts Report Table of Construction Project, Zhumadian City Yulong Tongli Cement Co., Ltd. Pure Low

Reference No.	Document or Type of Information
	Temperature Waste Heat Power Generation Project (7.5MW), evaluated by Henan Province Zhumadian District Environmental Protection Science Institute, dated May 8th, 2006.
9.	Approval of environment impact report table of Zhumadian City Yulong Tongli Cement Co., Ltd. Low Temperature Waste Heat Power Generation Project (7.5 MW), issued by Zhumadian City Environment Protection Bureau, file No., Zhu Huan Jian Biao [2006] 4#, dated May 10th, 2006
10.	The questionnaire of the comments consulting on the stakeholders of Zhumadian City Yulong Tongli Cement Co., Ltd. Low Temperature Waste Heat Power Generation Project, dated June 3rd, 2006
11.	The report of the comments consulting on the company members of Zhumadian City Yulong Tongli Cement Co., Ltd. Low Temperature Waste Heat Power Generation Project, dated June 16th, 2006
12.	The training plan for the production workers of the WHR power generation project of Province Investment, made by Luoyang heavy-industry mine machinery engineering design institute, dated March. 9th, 2007
13.	The training report card of Zhumadian Yulong Tongli Pure Low Temperature Waste Heat Power Generation station workers, dated April 3rd, 2007
14.	The report of the construction starting, dated Nov. 20th, 2006
15.	The Metering Device operation and management agreement of the captive power generation group metering points in Zhumadian City Yulong Tongli Cement Co., Ltd, signed by Zhumadian City Yulong Tongli Cement Co., Ltd. and Queshan County Electric Power Administration Metering Station, dated June 4th, 2007
16.	The project schedule of Zhumadian Yulong Tongli 5000t/d Cement Production Line Waste Heat Power Generation project, dated Dec. 10th, 2006
17.	10KV electricity once system sketch, made by Luoyang heavy-industry mine machinery engineering design institute, file No., F0604S-D0101-03
18.	The feasibility study report of the connection to the electricity grid of Zhumadian City Yulong Tongli Cement Co., Ltd. 2 × 7.5 MW Pure Low Temperature Waste Heat captive plant Issued by Henan electricity test research institute, issued by Henan Electricity Test Institute, dated Oct. 2006
19.	The Monitoring and Management Handbook of WHR Power generation station, issued by Huanghe Tongli Cement Co., Ltd.
20.	The training plan for the production workers of the WHR power generation project of Province Investment, made by Luoyang heavy-industry mine machinery engineering design institute, dated March. 9th, 2007

Reference No.	Document or Type of Information
21.	The third edition of Project Economic Evaluation Methods and Parameters, 2006, page 74
22.	The explanation of the alteration of the power capacity “2*7.5 MW is changed to 2*9 MW”, issued by Zhumadian Yulong Tongli Cement Co., Ltd., dated July 31st, 2007
23.	The inform of the checkup opinions on the grid connection system of Zhumadian Yulong Tongli Cement Co., Ltd. Pure Low Temperature Waste Heat Captive Power Generation Plant, issued by Henan Province Power Company, file No., Yu Dian Ji 1196#(2006), dated Dec. 31st, 2006
24.	CDM Project Development Agreement, signed by Zhumadian Yulong Tongli Cement Co., Ltd and Shanghai Chuanji Investment Management Co., Ltd., dated Sep. 8th, 2006
25.	The selective factory list of the equipments of Pure Low Temperature Waste Heat Power Generation Station
26.	The final PDD, dated Jan. 10th, 2008, submitted on Jan. 11th, 2008.
27.	The final IRR calculation spreadsheet, submitted on Jan. 11th, 2008.
28.	The evidence for common practice “the reply to the cement kiln waste heat electricity generation equipments”, issued by Henan Province Construction Material Industrial Commission, dated May 25th, 2006