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# Validation Report

**Productivity Centre of Jiangsu Province, P.R.C.**

VALIDATION OF THE CDM-PROJECT:  
YIXING SHUANGLONG CEMENT PLANT'S LOW  
TEMPERATURE WASTE HEAT POWER GENERATION  
PROJECT

REPORT NO. 1133193

**September 18, 2008**

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

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<b>Subject:</b> Validation of a CDM Project	
<b>Accredited TÜV SÜD Unit:</b> TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany	<b>TÜV SÜD Contract Partner:</b> Jiangsu TÜV Product Service Beijing Branch Unit 918, Landmark Tower 2 8 North Dongsanhuan Road Beijing 100004 P.R. China
<b>Client:</b> Productivity Centre of Jiangsu Province Longpan road No.175 Nanjing , Jiangsu Province People Republic of China	<b>Project Site(s):</b> Pushu Village, Xinjie Town, Yixing City Jiangsu Province People Republic of China
<b>Project Title:</b>  Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project	
<b>Applied Methodology / Version:</b>	ACM0012 / Version 01
<b>Scope(s):</b>	1, 4
<b>First PDD Version:</b> Date of issuance: 2007-08-22 Version No.: 01 Starting Date of GSP 2007-09-18	<b>Final PDD version:</b> Date of issuance: 2008-06-26 Version No.: 02
<b>Estimated Annual Emission Reduction:</b> 45,133 tons CO <sub>2e</sub>	
<b>Assessment Team Leader:</b> Dr. Sven Kolmetz	<b>Further Assessment Team Members:</b> Mr. Zhou Jianyong Ms. Li Xuemei Robert Mitterwallner
<b>Summary of the Validation Opinion:</b> <p><input checked="" type="checkbox"/> 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 or the applied methodology version respectively.</p> <p><input type="checkbox"/> 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.</p>	

## Abbreviations

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

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Annex 1: Validation Protocol

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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:

*Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation 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:

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

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

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

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

## 2 METHODOLOGY

The project assessment aims at being a risk based approach and is based on the methodology developed in the Validation and Verification Manual (for further information see <http://ieta.org/ieta/www/pages/index.php?IdSitePage=392>) 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.

<b>Validation Protocol Table 1: Conformity of Project Activity and PDD</b>				
<b>Checklist Topic / Question</b>	<b>Reference</b>	<b>Comments</b>	<b>PDD in GSP</b>	<b>Final PDD</b>
<i>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.</i>	<i>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.</i>	<i>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 <b>Request</b> has to be substantiated within this column</i>	<i>Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (☑), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question (See below). <b>Clarification Request (CR)</b> is used when the validation team has identified a need for further clarification.</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version.</i>

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

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

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

## 2.1 Appointment of the Assessment Team

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

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

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

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

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
<b>Dr. Sven Kolmetz</b>	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Jianyiong Zhou	GHG-A	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Ms. Li Xuemei	GHG-A			<input checked="" type="checkbox"/>
Robert Mitterwallner	GHG-A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

**Dr. Sven Kolmetz** is physicist and auditor at the department "TÜV Carbon Management Service" located in the head office of TÜV Süddeutschland 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.

**Jianyiong Zhou (Jimmy Zhou)** is a lead auditor for environmental management systems (according to ISO 14001) at Jiangsu TÜV Product Service Ltd. He is based in Guangzhou. In his position he is implementing validation, verification and certifications audits for anagement systems. He has received extensive training in the CDM validation process and participated already in several CDM project assessments as a trainee.

**Ms. Xuemei Li** is an auditor for environmental management systems (according to ISO 14001) at TUV SUD China. She is based in Guangzhou. In her position she is responsible for the implementation of validation, verification and certifications audits for management systems. She has received training in the CDM validation process and participated already in several CDM project assessments.



**Robert Mitterwallner** is a GHG-A with a background as auditor for environmental management systems (according to ISO 14001) and expert in environmental permit procedures. He is located at the headquarter of TÜV SÜD Industrie Service in Munich. He has received training in the JI determination as well as CDM validation process and applied successfully as GHG Auditor for several scopes.

## 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

On September 25, 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. Zhang Junwei	Vice General Manager, Yixing Shuanglong Cement Co., Ltd.
Mr. Sun Rongsen	Engineer, Yixing Shuanglong Cement Co., Ltd.
Mr. Zhang Qixing	Associate Engineer, Yixing Shuanglong Cement Co., Ltd.
Mr. Yao Yan	Delegate of Employees, Yixing Shuanglong Cement Co., Ltd.
Mr. Ji Jianxin	Stakeholder
Mr. Duan Jianping	Engineer, Productivity Centre of Jiangsu Province
Mr. Xue Jieming	Director Assistant, Productivity Centre of Jiangsu Province
Mr. Hiroji Tate	Senior Adviser, Marubeni Co., Ltd. (Buyer)
Mr. Wang Xin	Manager, Marubeni Co., Ltd. (Buyer)

## **2.4 Resolution of Clarification and Corrective Action Requests**

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

## **2.5 Internal Quality Control**

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

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

### **3 SUMMARY OF FINDINGS**

#### **History of the validation process**

The audit team has been provided with the first version of the PDD on August 22, 2007. Based on this documentation a gingerly 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 June 2008 serves as the basis for the assessment presented herewith. Additional documents that are necessary for registration have been submitted like the IRR calculation sheet (English versions with and without CER), LoAs and MoC. 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.

The proposed project is located in Xinjie Town, Yixing City, south of Jiangsu Province, P. R. China. At present, all waste heat from the suspension pre-heater (rear) of the clinker kiln (5.000 t/d) operated by Yixing Shuanglong Cement Co. Ltd. is vented directly into the atmosphere without any utilization, disregarding the typically preheating of raw material. The project will be using waste heat to feed two boilers to produce electricity by a steam turbine with 9 MW and a generator and supply it via 10.5 kV bus line to the internal electricity system of the plant. The electricity supplied by the proposed project is for plant use only and will replace electricity supplied by the East China Power Grid in the baseline.

The project will achieve emission reductions by supplying zero emission electricity to the corporation and substitute equivalent electricity from the East China Power Grid, which is dominated by thermal power. According to China Electric Power Yearbook 2006, the power generation by thermal plants is dominating. Therefore, the net generation of the project will displace same amount of electricity of the grid and a certain amount of greenhouse gas (GHG) emissions will be consequently reduced as well. The annual emission reductions are expected to be 45,133 tCO<sub>2</sub>e.

#### **Findings**

As informed above all findings are summarized in table 2 of the attached validation protocol. In total the assessment team expressed 26 Corrective Action Requests, 3 Clarification Requests and 4 open issues.

As all the generated electric power is being used to fulfil onsite requirement of Jiangsu Jiaoqiao Cement Co. Ltd. no electricity is being fed into the East China Power Grid. Inconsistencies in the PDD regarding this issue have been resolved (see CAR 2).

Other necessary information of the project has been added or revised in the final version of the PDD: e.g. the correct number of new jobs (CAR 1), implementation schedule (CAR 3), ex-ante calculation (CAR 11 to CAR 15), monitoring (CAR 17 to CAR 21), starting date of crediting period (CAR 22 to CAR 23) and detailed information about the baseline in Annex 3 (CAR 26).

Besides some further minor corrections these were the main findings. Most of the requests addressed formal aspects and inconsistencies between the documents delivered during the audit and the PDD.

### Baseline calculation

The baseline calculation has been done according to the approved methodologies ACM0012, version 1 and ACM0002, version 6. Both calculated OM and BM Emission Factor are identical with the officially ones published by the Office of National Coordination Committee on Climate Change of NDRC for the East China Power Grid (webpage: <http://cdm.ccchina.gov.cn/english/> ).

### Additionality

The additionality of the project was checked carefully. In doing so the assessment team has put the main focus on the following issues.

The assessment team has reviewed the proof for the early consideration of the project. The decision of the directorate of Yixing Shuanglong Cement Co. Ltd. to invest on Waste Heat Recovery Project applying for CDM project came in October 2006 (see IRL No. 28). Jiangsu Province Economy and Trade Committee (Government authority in charge of project approval) stated in July 2007 the application of Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project for CDM support (see IRL No. 42). Shuanglong project is a newly built one, which means the building of cement kiln line and the waste heat project is considered simultaneously. That's why methodology ACM0012 is chosen (applicable for newly built one). Meanwhile, the construction start of the project measures was in March 2008. The timeline as described in the PDD has been evidenced and the evidences are available as scanned documents.

In step one of applying the tool for the demonstration and assessment of additionality (additionality tool) it is concluded that alternatives to the proposed project activity are existing. The identified barrier that would prevent the implementation of the proposed CDM project activity was an investment barrier for construction and operation which would not prevent the implementation of the baseline alternative: *power supply by the East China power grid grid, and non-utilization of the waste heat*. Step two of the additionality tool, the investment analysis (benchmark analysis), describes in detail that the proposed project is not financially attractive without CER revenues. The proposed project belongs to highly energy consumption and environment polluting projects, according to guidance of financial system, the Wuxi Branch of People's Bank of China will not extend a loan to cement company project owner. The project owner is among the list for whome bank stops loan. Evidence from September 2006 that the bank not extend a loan has been provided to the DOE (IRL No. 40).

The assessment team has checked all sources of the IRR calculation (IRL No. 39), as presented in Sub-step 2c. of the PDD. The key parameters for the IRR calculation come from the officially approved Feasibility Study Report, whose approval was in July 2007 (IRL No. 6 and 7). It has been verified by the local Auditor of the DOE that the figures for the investment costs in the feasibility study report is consistent with that one used in the IRR calculation. The input values like investment costs (see open issue 3), operating costs (see open issue 4) and electricity prize (see open issue 2) have been validated by comparing the figures with statistical figures from similar projects activities registered and under validation. It seems to be reasonable to make this comparison as CDM projects normally face additional costs that make them financially less attractive than other waste heat recovery projects without CDM. Altogether it can be concluded that the assumptions are reasonable.

The IRR calculation will be uploaded together with the PDD.

With reference to Inform on Economic Assessment method and parameter of Construction Projects by SDPC and MOC, the financial benchmark rate of return (after tax) of Chinese building materials industries accounts for 12% of the total investment IRR. Presently, the financial benchmark rate of return is used in the analysis of the majority of cement projects in China. Further the source of the

IRR benchmark have been checked. The benchmark of 12 % is evidenced by Feasibility Study Report of Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project, by Luoyang Mining Machinery, in January 2007, including Project Financial Assessment Methods and Indicators, 3. Edition (IRL No. 6). The selected benchmark is deemed to be suitable for this kind of project activity.

A sensitivity analysis is performed, by taking into account 10% variations in total investment costs, operational and maintenance costs and power sales revenues. The sensitivity analysis has been independently checked. Variations of those parameters deem to be reasonable. It can be stated that under none of the assumed variation of variables the benchmark of 12 % is breached. According to the Jiangsu Yearbook 2005 the 10% range can be considered reasonable for the electricity prize. It may be concluded that, as result of the sensitivity analysis, the project is financially unattractive without CER revenues, even with a slightly higher range of sensitivity.

The common practice analysis, step 4 of the additionality tool, (see also CAR 10) shows in the PDD that according to statistic data from Economy and Commerce Commission of Jiangsu Province (see IRL No. 41) similar projects in the province of Jiangsu had been registered as CDM projects or the GSP for the application of CDM has been started. One similar project started construction and was approved by DNA of China. Two other ones listed in the PDD started construction and are applying for CDM support. It has been evidenced by the Economy and Commerce Commission of Jiangsu Province (see IRL No. 41) that the three mentioned project activities which are currently not published applied for CDM before the EB38 meeting. It has been taken into account by the Audit team that the additionality tool version 5 indicating additional guideline for sub-step 4a, is not applicable here (see PDD). Thus, it can be concluded that this kind of project activity without CDM is regarded not to be common practice in the region.

To conclude the additionality assessment it may be stated that the proposed project activity is without doubt additional.

## **Summary**

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

## 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:

<b>webpage:</b> <a href="http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=3732&amp;Ebene1_ID=26&amp;Ebene2_ID=1130&amp;mode=1">http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=3732&amp;Ebene1_ID=26&amp;Ebene2_ID=1130&amp;mode=1</a>	
<b>Starting date of the global stakeholder consultation process:</b> 2007-09-18	
<b>Comment submitted by:</b> -	<b>Issues raised:</b> -
<b>Response by TÜV SÜD:</b> -	

## 5 VALIDATION OPINION

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

*Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation 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, 2008-09-18



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

Munich, 2008-09-18



Dr. Sven Kolmetz  
Assessment Team Leader

Validation of the CDM Project:  
Yixing Shuanglong Cement Plant's Low Temperature Waste Heat  
Power Generation Project



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## **Annex 1: Validation Protocol**



## Validation Protocol

Project Title: Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project

Date of Completion: 2008-09-18

Number of Pages: 66



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
<b>A. General description of project activity</b>				
<b>A.1. Title of the project activity</b>				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	1, 2	The project is titled with the name of the project location including the company name and the energy source of the project. Hence, it can be clearly identified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indication concerning the revision number and the date of the revision?	1, 2	The available PDD for the document review and the on-site assessment is indicated as the 1st version and is completed on 22/08/2007.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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 Sep. 18 <sup>th</sup> , 2007 at the DOE's website: www.netinform.net.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.2. Description of the project activity</b>				
A.2.1. Is the description delivering a transparent overview of the project activities?	1, 2, 6, 7, 8, 9	It is a project of waste heat recovery and power generation in cement factory. The total installed capacity is 9MW, expected annual power generation is 59.50GWh and the net electricity available for sale to the grid is 54.14GWh per year.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	1, 2, 6, 7, 8, 9	The project activity is the displacement of purchasing electricity by coal fired power plants with electricity generated by utilizing the waste heat from the preheater outlet (rear) of the rotating kiln of the cement production. The following data deliver evidences for the project activity: <ul style="list-style-type: none"> <li>- Feasibility Study Report (approved on 4<sup>th</sup> July, 2007, issued by Economy and Trade Committee of Jiangsu Province)</li> <li>- EIA Repot (approved on 28<sup>th</sup> May, issued by Jiangsu</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Validation Protocol

Project Title: Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project

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Industrie Service

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		Province Environmental Protection Bureau) These data have been evidenced during the audit.		
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	1, 2, 6, 7, 8, 9	The required data and background are delivered in the PDD and have been evidenced mostly during the audit. <b><u>Corrective Action Request No.1.</u></b> The jobs would be offered is 15 in the FSR not 18 mentioned in the PDD. Please correct it.	CAR 1	<input checked="" type="checkbox"/>
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1	Yes, all information presented is consistent with details provided by further chapters of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.3. Project participants</b>				
A.3.1. Is the form required for the indication of project participants correctly applied?	1, 2	The required form is applied correctly.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?	1, 2, 29, 30, 31	<b><u>Open issue</u></b> Pls. deliver the LoAs issued by China and Japan together with MoC to DOE before raising the request of registration.	Open Issue	<input checked="" type="checkbox"/>
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, 2	Yes, it is.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4. Technical description of the project activity</b>				
<b>A.4.1. Location of the project activity</b>				
A.4.1.1. Does the information provided on the location of the project activity allow for a	1, 2, 6, 8	The project locates in Pushu Village, XinjieTown, Yixing City, in the southern mountainous area of Jiangsu Province, The specific	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Validation Protocol

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clear identification of the site(s)?		site location is at longitude 119°39'10.4"E and at latitude 31°19'38.1"N.		
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, 2, 7, 9, 10, 11, 12, 19	The Feasibility Study Report of the project was approved by Economy and Trade Committee of Jiangsu Province. The EIA Report Table was approved by Jiangsu Province Environmental Protection Bureau. Furthermore a certificate for use of state-owned land and a technical service contract on CDM project are available.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.2. Category(ies) of project activity</b>				
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 inter alia, this has been clearly identified in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.3. Technology to be employed by the project activity</b>				
A.4.3.1.Does the technical design of the project activity reflect current good practices?	1, 2, 6, 19	The project design is Waste Heat Recovery (WHR) technology and hence reflects the current good practices to use waste heat to generate electricity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, 19	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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, 2, 6, 19	There is no technology to be transferred from abroad to the host Party.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.4.Is the technology implemented by the	1, 2,	The project activity is electricity generation by utilizing the waste	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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project activity environmentally safe?	8, 9	heat from the rotating kiln of cement production. Through the re-recovery process of waste heat, the heat emissions ( could be significantly reduced.		
A.4.3.5.Is the information provided in compliance with actual situation or planning?	1, 2, 6, 7, 8, 9	<b><u>Corrective Action Request No.2.</u></b> The description of the grid connection system is different from the FSR. Please resolve this inconsistency.	CAR 2	<input checked="" type="checkbox"/>
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, 19	Yes. The project adopts advanced technology and equipments.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.7.Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1, 6, 19	We do not expect that there will be a substitution.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, 19	Yes, the Project Entity is a professional manufacturer of cement, but its internal staffs are not experienced in power generation. There are additional training needs to guarantee safe operation during the life time of the project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.9.Is information available on the demand and requirements for training and maintenance?	1	As confirmed on-site, the start of construction of this project is on 1st Oct. 2007.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.10. Is a schedule available for the implementation of the project and are there any risks for delays?	1, 12	Yes, there is a project schedule available on-site. The Vice General Manager of Yixing Shuanglong Cement Co., Ltd. has reported that he would not expect any delays.	CAR 3	<input checked="" type="checkbox"/>

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		<b><u>Corrective Action Request No.3.</u></b> Please add a time schedule of the project activity into the revised PDD.		
<b><i>A.4.4. Estimated amount of emission reductions over the chosen crediting period</i></b>				
A.4.4.1.Is the form required for the indication of projected emission reductions correctly applied?	1, 2	The project emission reductions are shown in chapter A.4.4 Table 2 of the PDD according to the guidelines. <b><u>Corrective Action Request No.4.</u></b> 1. The crediting period (Oct. 1 <sup>st</sup> , 2008-Oct. 31 <sup>st</sup> , 2008) is not applicable. Please modify the crediting period and update the emissions reduction figures in the PDD (indicate the month exactly figures for the first and the last year of the crediting period) and accordingly revise the form in B.6.4 of the PDD. 2. The presented table does not have any identification name and number (i.e. Table 2). Please extend this issue to the rest of the tables of the PDD.	<b>CAR 4</b>	<input checked="" type="checkbox"/>
A.4.4.2.Are the figures provided consistent with other data presented in the PDD?	1, 2	Yes, please see A.4.4.1.	<b>See CAR 4</b>	<input checked="" type="checkbox"/>
<b><i>A.4.5. Public funding of the project activity</i></b>				
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, 2	According to the investment records reviewed by the DOE there is no public funding necessary.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.5.2.Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1, 2	The statement in Annex 2 is consistent with that in chapter A.4.5 of PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B. Application of a baseline and monitoring methodology													
B.1. Title and reference of the approved baseline and monitoring methodology													
B.1.1	Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	1, 2	The methodology ACM0012 (version 01) is applied to this project. It is clearly indicated in B.1. of the PDD.	☑	☑								
B.1.2.	Is the applied version the most recent one and / or is this version still applicable?	1, 2	The version 01 of ACM0012 is valid from 06 Jul 2007 to 01 Nov 2007. Requests for registration can be submitted until July 1, 2008.	☑	☑								
B.2. Justification of the choice of the methodology and why it is applicable to the project activity													
B.2.1	Is the applied methodology considered the most appropriate one?	1, 2	Yes, the applied methodology is considered the most appropriate one.	☑	☑								
B.2.2	Criterion 1: The applicability is limited to project activities that utilize waste gas and/or waste heat as an energy source for: - cogeneration or - generation of electricity or - direct use as process heat source or - for generation of heat in element process (e. g. steam, hot water, hot oil, hot air)  and that also use waste pressure: - to generate electricity.	1, 2	<table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table> The proposed project is going to utilize waste heat in cement production for generation of electricity.	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	☑	☑
Applicability checklist	Yes / No												
Criterion discussed in the PDD?	Yes												
Compliance provable?	Yes												
Compliance verified?	Yes												
B.2.3.	Criterion 2: Cogeneration of energy is from combined heat and power and not from combined cycle mode of electricity generation.	1, 2	<table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>NA</td></tr><tr><td>Compliance provable?</td><td>NA</td></tr></table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	NA	Compliance provable?	NA	☑	☑		
Applicability checklist	Yes / No												
Criterion discussed in the PDD?	NA												
Compliance provable?	NA												

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		<table><tr><td>Compliance verified?</td><td>NA</td></tr></table>		Compliance verified?	NA								
Compliance verified?	NA												
B.2.4. Criterion 3: Waste gas/ /pressure that is released under abnormal operation (emergencies, shut-down) of the plant shall not be accounted for	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>NA</td></tr><tr><td>Compliance provable?</td><td>NA</td></tr><tr><td>Compliance verified?</td><td>NA</td></tr></table>		Applicability checklist	Yes / No	Criterion discussed in the PDD?	NA	Compliance provable?	NA	Compliance verified?	NA	☑	☑
Applicability checklist	Yes / No												
Criterion discussed in the PDD?	NA												
Compliance provable?	NA												
Compliance verified?	NA												
B.2.5. Criterion 4: The project activity is use of waste pressure to generate electricity and the electricity generated using waste gas pressure should be measurable.	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>NA</td></tr><tr><td>Compliance provable?</td><td>NA</td></tr><tr><td>Compliance verified?</td><td>NA</td></tr></table>		Applicability checklist	Yes / No	Criterion discussed in the PDD?	NA	Compliance provable?	NA	Compliance verified?	NA	☑	☑
Applicability checklist	Yes / No												
Criterion discussed in the PDD?	NA												
Compliance provable?	NA												
Compliance verified?	NA												
B.2.6. Criterion 5: The energy/electricity generated in the project activity - may be used within the industrial facility or - exported outside the industrial facility or - may be exported to the grid.	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table> <p>The proposed project will use the electricity generated by utilization of waste heat for cement production purpose only and within the project boundary by power export to the East China Power Grid.</p>		Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	☑	☑
Applicability checklist	Yes / No												
Criterion discussed in the PDD?	Yes												
Compliance provable?	Yes												
Compliance verified?	Yes												
B.2.7. Criterion 6: The energy in the project activity can be generated - by the owner of the industrial facility producing the waste gas/heat or - by a third party within the industrial	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>		Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	☑	☑
Applicability checklist	Yes / No												
Criterion discussed in the PDD?	Yes												
Compliance provable?	Yes												
Compliance verified?	Yes												

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facility.		Under common conditions for cement production, waste heat is release into the air.										
B.2.8. Criterion 7: Before implementing the project activity no regulations constrained the industrial facility to generate waste gas from using fossil fuels.	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table> <p>There is no regulations that constrained the industrial facility to generate waste gas from using fossil fuels.</p>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
B.2.9. Criterion 8: If capacity expansion of an existing facility is planned the added capacity must be treated as a new facility.	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>NA</td></tr><tr><td>Compliance provable?</td><td>NA</td></tr><tr><td>Compliance verified?</td><td>NA</td></tr></table> <p>The project activity is an installation of a new power plant. Hence, this section is not applicable.</p>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	NA	Compliance provable?	NA	Compliance verified?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	NA											
Compliance provable?	NA											
Compliance verified?	NA											
B.2.10. Criterion 9: Either one of the following proofs shall be given if the waste gas/pressure utilized in the project activity was flared or released into the atmosphere in absence of the project at an existing facility: <ul style="list-style-type: none"><li>direct measurements of energy content and amount of the waste gas for at least 3 years prior to the start of the</li></ul>	1, 2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>NA</td></tr><tr><td>Compliance provable?</td><td>NA</td></tr><tr><td>Compliance verified?</td><td>NA</td></tr></table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	NA	Compliance provable?	NA	Compliance verified?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	NA											
Compliance provable?	NA											
Compliance verified?	NA											



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<p>project activity or</p> <ul style="list-style-type: none"><li>energy balance of relevant sections of the plant to indicate that the waste gas/heat was not a source of energy before the implementation of the project activity or</li><li>energy bills to demonstrate that all the energy required for the process has been procured commercially</li><li>significant manufacturer's documents from the construction of the facility for estimating quantity and energy content of waste gas/heat produced for rated plant capacity/per unit of product produced</li><li>onsite check by the DOE that no equipment for waste gas recovery and use has been installed prior to the implementation of the project activity.</li></ul>												
<p>B.2.11. Criterion 10: The credits are claimed by the generator of energy using waste gas/heat/pressure in consideration of:</p> <ul style="list-style-type: none"><li>energy exported to other facilities (recipients) which shall not claim the emission reductions for using a zero-emission energy source or</li><li>facilities and recipients included in the project boundary generated energy on</li></ul>	1, 2	<table><tr><th>Applicability checklist</th><th>Yes / No</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											

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site prior to implementation of the project activity which can claim credits for the remaining lifetime of equipments currently used and credit period.															
B.3. Description of the sources and gases included in the project boundary															
B.3.1.	Source: electricity generation, grid or captive source Description of Source: main emission Gas(es): CO <sub>2</sub> Type: Baseline Emissions	1, 2	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Source and gas(es) discussed in the PDD?	Yes														
Inclusion / exclusion justified?	Yes														
Explanation / Justification sufficient?	Yes														
Consistency with monitoring plan?	Yes														
B.3.2.	Source: fossil fuel consumption in boiler for thermal energy Description of Source: main emission Gas(es): CO2 Type: Baseline Emissions	1, 2	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>NA</td></tr><tr><td>Inclusion / exclusion justified?</td><td>NA</td></tr><tr><td>Explanation / Justification sufficient?</td><td>NA</td></tr><tr><td>Consistency with monitoring plan?</td><td>NA</td></tr></table>	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	NA	Inclusion / exclusion justified?	NA	Explanation / Justification sufficient?	NA	Consistency with monitoring plan?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Source and gas(es) discussed in the PDD?	NA														
Inclusion / exclusion justified?	NA														
Explanation / Justification sufficient?	NA														
Consistency with monitoring plan?	NA														
B.3.3.	Source: fossil fuel consumption in co-generation plant Description of Source: main emission Gas(es): CO2 Type: Baseline Emissions		<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>NA</td></tr><tr><td>Inclusion / exclusion justified?</td><td>NA</td></tr><tr><td>Explanation / Justification sufficient?</td><td>NA</td></tr><tr><td>Consistency with monitoring plan?</td><td>NA</td></tr></table>	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	NA	Inclusion / exclusion justified?	NA	Explanation / Justification sufficient?	NA	Consistency with monitoring plan?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Source and gas(es) discussed in the PDD?	NA														
Inclusion / exclusion justified?	NA														
Explanation / Justification sufficient?	NA														
Consistency with monitoring plan?	NA														
B.3.4.	Source: emissions from generation of			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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	steam used in the flaring process Description of Source: main emission Gas(es): CO2 Type: Baseline Emissions		Boundary checklist	Yes / No		
			Source and gas(es) discussed in the PDD?	NA		
			Inclusion / exclusion justified?	NA		
			Explanation / Justification sufficient?	NA		
			Consistency with monitoring plan?	NA		
B.3.5.	Source: supplemental fossil fuel consumption at the project plant Description of Source: main emission Gas(es): CO2 Type: Project Emissions	1, 2, 3	Boundary checklist	Yes / No	☑	☑
			Source and gas(es) discussed in the PDD?	NA		
			Inclusion / exclusion justified?	NA		
			Explanation / Justification sufficient?	NA		
			Consistency with monitoring plan?	NA		
B.3.6.	Source: supplemental electricity consumption Description of Source: main emission Gas(es): CO2 Type: Project Emissions		Boundary checklist	Yes / No	☑	☑
			Source and gas(es) discussed in the PDD?	Yes		
			Inclusion / exclusion justified?	Yes		
			Explanation / Justification sufficient?	Yes		
			Consistency with monitoring plan?	Yes		
B.3.7.	Source: emissions from cleaning of gas Description of Source: only in case waste gas cleaning is required and leads to emissions related to the energy requirement of the cleaning Gas(es): CO2 Type: Project Emissions		Boundary checklist	Yes / No	☑	☑
			Source and gas(es) discussed in the PDD?	Yes		
			Inclusion / exclusion justified?	Yes		
			Explanation / Justification sufficient?	Yes		
			Consistency with monitoring plan?	Yes		
B.3.8.	Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?		Yes, the spatial and technological boundaries are verified during the on-site audit, and it is comply with the discussion provided by the PDD.		☑	☑

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B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario												
B.4.1. Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete (Step 1)?	1, 2, 3	<div>Baseline options and combinations which should be considered:</div> <table><tr><th>Defined and discussed in PDD?</th><th>Yes / No</th></tr><tr><td>industrial facility where waste gas/heat/pressure is generated</td><td>Yes</td></tr><tr><td>facility where the energy is produced</td><td>Yes</td></tr><tr><td>facility where the energy is consumed</td><td>Yes</td></tr></table>	Defined and discussed in PDD?	Yes / No	industrial facility where waste gas/heat/pressure is generated	Yes	facility where the energy is produced	Yes	facility where the energy is consumed	Yes	<input checked="" type="checkbox"/>	
Defined and discussed in PDD?	Yes / No											
industrial facility where waste gas/heat/pressure is generated	Yes											
facility where the energy is produced	Yes											
facility where the energy is consumed	Yes											
B.4.2. Does the project identify correctly and exclude those options not in line with regulatory or legal requirements?	1, 2, 3	<div>Yes, the project identifies correctly and excludes those options not in line with regulatory or legal requirements.</div> <div><b><u>Corrective Action Request No.5.</u></b></div> <div>Please describe the baseline scenario alternatives according to the methodology in the same manner.</div>	CAR 5	<input checked="" type="checkbox"/>								
B.4.3. Have applicable regulatory or legal requirements been identified?	1, 2, 3	Yes, the applicable regulatory or legal requirements been identified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
B.4.4. Does the project participants exclude baseline options that depend on fuels (used for generating heat and/or power), that are not available at the project site?	1, 2, 3	Yes, it is.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
B.4.5. Have all realistic and credible alternatives been discussed for the use of waste gas and the exclusion of options	1, 2, 3	Alternative(s) may include, inter alia:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

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justified (Step 1, W1 – 4)?			Categories		Yes / No		
			W1	Waste gas is directly vented to atmosphere without incineration;	Yes		
			W2	Waste gas is released to the atmosphere after incineration or waste heat is released to the atmosphere (waste pressure energy is not utilized);	Yes		
			W3	Waste gas/heat is sold as an energy source;	Yes		
			W4	Waste gas/heat/pressure is used for meeting energy demand.	Yes		
B.4.6.	Have all realistic and credible alternatives been discussed for power generation and the exclusion of options justified (Step 1, P1 – 8)?		Alternative(s) may include, inter alia:			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
			Categories		Yes / No		
		P1	Proposed project activity not undertaken as a CDM project activity;	Yes			
		P2	On-site or off-site existing/new fossil fuel fired cogeneration plant;	Yes			
		P3	On-site or off-site existing/new renewable energy based cogeneration plant;	Yes			
		P4	On-site or off-site existing/new fossil fuel based existing captive or identified plant;	Yes			
		P5	On-site or off-site existing/new renewable energy based existing captive or identified plant;	Yes			

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			P6	Sourced Grid-connected power plants;	Yes																											
			P7	Captive Electricity generation from waste gas (if project activity is captive generation with waste gas, this scenario represents captive generation with lower efficiency than the project activity.);	Yes																											
			P8	Cogeneration from waste gas (if project activity is cogeneration with waste gas, this scenario represents cogeneration with lower efficiency than the project activity).	Yes																											
B.4.7.	Have all realistic and credible alternatives been discussed for heat generation and the exclusion of options justified (Step 1, H1 – 9)?		Alternative(s) may include, inter alia: <table><tr><th colspan="2">Categories</th><th>Yes / No</th></tr><tr><td>H1</td><td>Proposed project activity not undertaken as a CDM project activity;</td><td>Yes</td></tr><tr><td>H2</td><td>On-site or off-site existing/new fossil fuel based cogeneration plant;</td><td>Yes</td></tr><tr><td>H3</td><td>On-site or off-site existing /new renewable energy based cogeneration plant;</td><td>Yes</td></tr><tr><td>H4</td><td>An existing or new fossil fuel based boilers;</td><td>Yes</td></tr><tr><td>H5</td><td>An existing or new renewable energy based boilers;</td><td>Yes</td></tr><tr><td>H6</td><td>Any other source such as district heat;</td><td>Yes</td></tr><tr><td>H7</td><td>Other heat generation technologies (e.g. heat</td><td>Yes</td></tr></table>				Categories		Yes / No	H1	Proposed project activity not undertaken as a CDM project activity;	Yes	H2	On-site or off-site existing/new fossil fuel based cogeneration plant;	Yes	H3	On-site or off-site existing /new renewable energy based cogeneration plant;	Yes	H4	An existing or new fossil fuel based boilers;	Yes	H5	An existing or new renewable energy based boilers;	Yes	H6	Any other source such as district heat;	Yes	H7	Other heat generation technologies (e.g. heat	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Categories		Yes / No																														
H1	Proposed project activity not undertaken as a CDM project activity;	Yes																														
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				pumps or solar energy);																	
			H8	Steam/ Process heat generation from waste gas, but with lower efficiency;	Yes																
			H9	Cogeneration from waste gas, but with lower efficiency.	Yes																
B.4.8.	Has a baseline scenario matrix been developed?	1, 2, 3	Yes, a baseline scenario matrix has been developed.				☑	☑													
B.4.9.	Has the fuel been identified and justified which were used in the baseline scenario (Step 2)?	1, 2, 3	Yes, the fuel has been identified and justified which were used in the baseline scenario.				☑	☑													
B.4.10.	Has the latest approved version of the “Tool for the demonstration and assessment of additionality” been used to eliminate non feasible baseline options (Step 3)?	1, 2, 3	Yes, the latest approved version of the “Tool for the demonstration and assessment of additionality version 3” has been used to eliminate non feasible baseline options.				☑	☑													
B.4.11.	Is it demonstrated that the option with the lowest baseline emissions is considered as the most likely baseline scenario, if more than one feasible alternative remain (Step 4)?	1, 2, 3	NA, only one feasible alternative remains and that is Alternative 5)- Sourced Grid-connected power plants (P6); continue the current situation to import electricity from East China power grid can be taken as the proposed project’s baseline scenario.				☑	☑													
B.4.12.	Follows the identified baseline scenario one of the two project scenarios resulting from combinations of baseline options and scenarios applicable to ACM0012?	1, 2, 3	<div>Applicability criteria of ACM0012:</div> <table><tr><th colspan="5">Project Scenario: Cogeneration of energy</th></tr><tr><th rowspan="2">Scenario</th><th colspan="3">Baseline options</th><th rowspan="2">Yes / No</th></tr><tr><th>Waste gas</th><th>Power</th><th>Heat</th></tr></table>				Project Scenario: Cogeneration of energy					Scenario	Baseline options			Yes / No	Waste gas	Power	Heat	☑	☑
Project Scenario: Cogeneration of energy																					
Scenario	Baseline options			Yes / No																	
	Waste gas	Power	Heat																		

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		1 W2 P4 or P6 H4 NA		
		2 W2 P2 H2 NA		
		Project Scenario: Generation of Electricity or Heat only		
		Scenario Baseline options		
		Waste gas Power/Heat Yes / No		
		1 W2 P4 or P6/H4 Yes		
<b>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>				
B.5.1. Has CDM been considered before the starting date of the project activity and which evidence has been delivered?	1, 2, 3, 28	Yes, CDM has been considered before the starting date of the project activity, and evidence has been submitted to the DOE during the on-site audit. Yixing Shuanglong Cement Co., Ltd: Investment Discussion of Waste Heat Recovery Project, October 8, 2006	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.2. In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	1, 2, 3	Yes, the project will use benchmark analysis method based on the consideration that benchmark IRR of the power sector is available.  <b><u>Corrective Action Request No.6.</u></b>  1. Please clarify the meaning of "These actual and feasible substitutable scheme will become (a part of) baseline scenario." 2. "Tools for the demonstration and assessment of additionality" should be "Tool for the demonstration and assessment	CAR 6	<input checked="" type="checkbox"/>



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		<i>of additionality</i> ". Please correct it.		
B.5.3. In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?	1, 2, 3	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.4. 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, 2, 3	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.5. 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, 2, 3, 6	<p>Yes, with reference to <i>Inform on Economic Assessment method and parameter of Construction Projects by SDPC and MOC</i>, the financial benchmark rate of return (after tax) of Chinese building materials industries accounts for 12% of the total investment IRR.</p> <p><b><u>Clarification Request No. 1.</u></b></p> <p>Please provide the evidence for the bench mark 12% and other evidences mentioned as footnotes.</p> <p><b><u>Corrective Action Request No.7.</u></b></p> <p>Please indicate the version and the year published in the footnote 5 of the PDD.</p>	CR 1 CAR 7	<input checked="" type="checkbox"/>
B.5.6. 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, 2, 3, 6, 7, 32, 33, 34, 35, 36,	<p>No.</p> <p><b><u>Corrective Action Request No.8.</u></b></p> <p>1 . Some calculation results are wrong in the Chinese IRR calculation spreadsheet such as the maintenance fee, other fees, sale fax and annex.</p> <p>2 . The total investment is 56.53 million yuan according to the</p>	CAR 8 CR 2	<input checked="" type="checkbox"/>

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	37, 38, 39	<p>financial section of the FSR different from 55.39 mentioned in the PDD. Please discuss the deviation and, if applicable, correct it and accordingly revise the IRR calculation.</p> <p>3 . The education appended fee is 3% of VAT according to the FSR different from 4 % mentioned in the PDD. Please discuss the deviation and, if applicable, correct it and accordingly revise the IRR calculation.</p> <p>4 . The expected CERs price is 10.6\$ in fact. Please correct it.</p> <p><b><u>Clarification Request No. 2.</u></b></p> <p>Please provide the IRR calculation spreadsheet with the formula in English to the audit team.</p>		
B.5.7. 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, 2, 3, 6, 7, 39	Yes, the analysis is presented in a transparent manner.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.8. 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, 2, 3, 6, 7	<p>The project owner encounters both technology and investment barriers which are demonstrated in the PDD.</p> <p><b><u>Corrective Action Request No.9.</u></b></p> <p>1. "To determine that if there are certain barriers, which would prevent the implementation of the type of project activity from being carried out if the project activity was not registered as a CDM activity" should be deleted in the revised PDD.</p> <p>2. Please show some special barriers of the propose project in the revised PDD.</p>	<b>CAR 9</b>	<input checked="" type="checkbox"/>

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B.5.9. In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1, 2, 3, 6, 7	<b>Clarification Request No. 3.</b> Please provide transparent and documented evidences for the barriers mentioned in the PDD.	CR 3	<input checked="" type="checkbox"/>
B.5.10. In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?	1, 2, 3, 6, 7	<i>The alternative 5)</i> , i.e. import of equivalent amount of electricity from East China power does not need extra investment and is in compliance with China's relative laws and rules. And <i>the alternative 5)</i> would not face the technological and investment barriers. So the barriers mentioned above would not prevent the implementation of <i>the alternative 5)</i> .	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.11. 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, 3, 6, 7	According to information from <i>2005 Jiangsu Yearbook</i> , there are 279 cement companies in Jiangsu, and 95.48% cement production is from new dry cement line, that means most of the cement production lines are similar to the production lines of Qingshi cement company. And according to statistic data from <i>Economy and Commerce Commission of Jiangsu Province</i> , there are only 10 cement plants in Jiangsu Province which intend to implement Waste Heat Recovery project and try for CDM (including the proposed project Qingshi project itself). The information of 2 projects of them has been shown in the table in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.12. 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	Similar cement plants in Jiangsu province are applying CDM actively, and which take a very small part, that means there is no penetration of this technology in Jiangsu Province. So these projects do not affect the additionality of the proposed project, the proposed project has a strong additionality.  "To summarize, it can be proved that the project activity is not a baseline scenario." which is indicated in the PDD.  But the common practice analysis is meant to prove the additionality of the proposed project.	CAR 10	<input checked="" type="checkbox"/>

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		<b><u>Corrective Action Request No.10.</u></b> The discussion of the Sub-step 4 b is confused. Please clarify it in the revised PDD.		
<b>B.6. Emissions reductions</b>				
<i>B.6.1. Explanation of methodological choices</i>				
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: -- Step1: Estimate the Baseline Emission (BEy) -- Step2: Determine Baseline Emission Factor (EFy) -- Step3: Estimate the Project Emission (PEy) -- Step4: Estimating leakage (LEy)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.2.Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?	1, 2	Yes, the baseline emissions factor for grid has been chosen ex-ante as per the option offered by ACM0002, version 6.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.3.Are the formulae required for the determination of <b>baseline</b> emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2, 3	Yes, the baseline emission is product of net electricity supplied to manufacturing facility and grid emission factor determined ex-ante. <b><u>Corrective Action Request No.11.</u></b> 1. In B.6.1 step 1, it is mentioned "The annual product for a 500t/d cement line is 155*10 <sup>4</sup> t clinker;" but in fact, it is a 5000t/d cement line. Please extend this issue to other parts of the PDD. 2. It is mentioned "This PDD refers to the Operating Margin (OM) Emission Factor and the Build Margin (BM) Factor published by the Chinese DNA on Dec.15 <sup>th</sup> 2006" which is different from Annex 3. Please resolve this inconsistency and update the data in consistent with other chapters of	<b>CAR 11</b>	<input checked="" type="checkbox"/>

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		the PDD.		
B.6.1.4.Are the formulae required for the determination of <b>project</b> emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	1, 2, 3	Yes, the formulae for determination of project emissions are correctly presented in section B.6.3 of the PDD. <b><u>Corrective Action Request No.12.</u></b> In B.3 of the project boundary description, CO <sub>2</sub> emission from supplemental electricity consumption and cleaning of gas has been mentioned in the project emission. But the corresponding discussion is absent in B.6.3 of the project emission of the PDD.	CAR 12	<input checked="" type="checkbox"/>
B.6.1.5.Are the formulae required for the determination of emission reductions correctly presented?	1, 2, 3	<b><u>Corrective Action Request No.13.</u></b> The formulae required for the determination of emission reductions aren't presented in the PDD. Please resolve this issue.	CAR 13	<input checked="" type="checkbox"/>
<p><i>B.6.2. Data and parameters that are available at validation:</i></p> <p><i>The calculation of baseline emissions (<math>BE_{En,y}</math>) depends on the identified baseline scenario.</i></p> <p><i>Scenario 1 represents the situation where the electricity is obtained from a specific existing power plant or from the grid and heat from a fossil fuel based element process.</i></p> <p><i>Scenario 2 represents the situation where the recipient plant(s) obtain electricity and/or heat generated by a fossil fuel based existing/new cogeneration plant.</i></p>				
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, 3	Yes, the list of parameters presented complies with the requirements of the applied methodology. <b><u>Corrective Action Request No.14.</u></b> Please justify, why the data of $NCV_i$ is from China Energy Statistical Yearbook 2004? Please provide the detailed information for "Quote from DNA data".	CAR 14	<input checked="" type="checkbox"/>
Integrate the required amount of sub-checklists for monitoring parameter and <b>comment</b> on any line answered with "No".				

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B.6.2.2.Parameter Title: $f_{wg}$ fraction of total electricity generated by the project activity using waste gas	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
B.6.2.3.Parameter Title: $f_{cap}$ fraction of total energy produced using waste gas	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
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Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
B.6.2.4.Parameter Title: $\eta_{plant, j}$ overall efficiency of the existing plant that would be used by recipient	1, 2	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Data Checklist	Yes / No																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					
Appropriate description of parameter?	NA																					
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		Measurement method correctly described?	NA																					
B.6.2.5.Parameter Title: $f_{wg}$ fraction of total heat generated by the project activity electricity using waste gas	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>			Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																							
Title in line with methodology?	NA																							
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Source clearly referenced?	NA																							
Correct value provided?	NA																							
Has this value been verified?	NA																							
Choice of data correctly justified?	NA																							
Measurement method correctly described?	NA																							
B.6.2.6.Parameter Title: $\eta_{EP, i,j}$ efficiency of the element process that would have been supplied heat to the recipient	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>			Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Choice of data correctly justified?	NA																							
Measurement method correctly described?	NA																							
B.6.2.7.Parameter Title: $\eta_{Cogen}$ efficiency of cogeneration plant using fossil fuel	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr></table>			Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
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		Choice of data correctly justified?	NA																				
		Measurement method correctly described?	NA																				
B.6.2.8.Parameter Title: $Q_{WG,y}$ quantity of waste gas used for energy generation during year	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.9.Parameter Title: $\eta_{Boiler, fl}$ efficiency of the boiler that would have been used to generate the steam	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.10. Parameter Title: $Q_{WG, FI, B}$ amount of waste gas flared using steam prior to the implementation of the project activity	1, 2, 3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Data Checklist	Yes / No																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						



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		Has this value been verified?	NA			
		Choice of data correctly justified?	NA			
		Measurement method correctly described?	NA			
B.6.2.11. Parameter Title: $Q_{st, fl, B}$ steam used to flare the waste gas prior to the implementation of the project activity	1, 2, 3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist	Yes / No			
		Title in line with methodology?	NA			
		Data unit correctly expressed?	NA			
		Appropriate description of parameter?	NA			
		Source clearly referenced?	NA			
		Correct value provided?	NA			
		Has this value been verified?	NA			
		Choice of data correctly justified?	NA			
		Measurement method correctly described?	NA			
B.6.2.12. Parameter Title: $NCV_i$ net calorific value annual average for each consumed fuel and the waste gas/heat	1, 2, 3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		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?	NA			
B.6.2.13. Parameter Title: $Q_{WG, BL}$ quantity of waste gas generated prior to the start of the project activity	1, 2, 3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist	Yes / No			
		Title in line with methodology?	NA			
		Data unit correctly expressed?	NA			
		Appropriate description of parameter?	NA			
		Source clearly referenced?	NA			

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		Correct value provided?	NA			
		Has this value been verified?	NA			
		Choice of data correctly justified?	NA			
		Measurement method correctly described?	NA			
B.6.2.14. Parameter Title: $Q_{BL, product}$ production by process that most logically relates to waste gas generation in baseline	1, 2, 3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist	Yes / No			
		Title in line with methodology?	NA			
		Data unit correctly expressed?	NA			
		Appropriate description of parameter?	NA			
		Source clearly referenced?	NA			
		Correct value provided?	NA			
		Has this value been verified?	NA			
		Choice of data correctly justified?	NA			
		Measurement method correctly described?	NA			
B.6.2.15. Parameter Title: $q_{wg, product}$ amount of waste gas/heat/pressure the industrial facility generates per unit of product generated by the process that generates waste gas/heat/pressure	1, 2, 3	<b><u>Corrective Action Request No.15.</u></b> The correct value of $q_{wg, product}$ should be indicated in the revised PDD.			<b>CAR 15</b>	<input checked="" type="checkbox"/>
		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?	No			
		Has this value been verified?	No			
		Choice of data correctly justified?	No			
		Measurement method correctly described?	Yes			

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<b>B.6.2.16. Parameter Title:</b> Annual electricity supplied to the grid prior to retrofit (applicable only for retrofit and modification activities)	1, 2, 3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist		
		Title in line with methodology?		
		Data unit correctly expressed?		
		Appropriate description of parameter?		
		Source clearly referenced?		
		Correct value provided?		
		Has this value been verified?		
		Choice of data correctly justified?		
		Measurement method correctly described?		
<b>B.6.2.17. Parameter Title:</b> Emission factor of the grid (CM)	1, 2, 3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist		
		Title in line with methodology?		
		Data unit correctly expressed?		
		Appropriate description of parameter?		
		Source clearly referenced?		
		Correct value provided?		
		Has this value been verified?		
		Choice of data correctly justified?		
		Measurement method correctly described?		

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B.6.2.18. Parameter Title: Operating margin (OM) emission factor of the grid	1, 2, 3			☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description?	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?	NA		
B.6.2.19. Parameter Title: Build margin (BM) emission factor of the grid	1, 2, 3			☑	☑
		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?	NA		

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B.6.2.20. Parameter Title: fuel consumption of each power source	1, 2, 3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist		
		Title in line with methodology?		
		Data unit correctly expressed?		
		Appropriate description of parameter?		
		Source clearly referenced?		
		Correct value provided?		
		Has this value been verified?		
		Choice of data correctly justified?		
		Measurement method correctly described?		
B.6.2.21. Parameter Title: emission coefficient of each fuel	1, 2, 3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist		
		Title in line with methodology?		
		Data unit correctly expressed?		
		Appropriate description of parameter?		
		Source clearly referenced?		
		Correct value provided?		
		Choice of data correctly justified?		

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		Measurement method correctly described?	NA			

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B.6.2.22. Parameter Title: electricity generation of each power source	1, 2, 3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist		
		Title in line with methodology?		
		Data unit correctly expressed?		
		Appropriate description of parameter?		
		Source clearly referenced?		
		Correct value provided?		
		Has this value been verified?		
		Choice of data correctly justified?		
		Measurement method correctly described?		
B.6.2.23. Parameter Title: fraction of time with low costs /must run plant at the margin (for simple adjusted OM only)	1, 2, 3		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist		
		Title in line with methodology?		
		Data unit correctly expressed?		
		Appropriate description of parameter?		
		Source clearly referenced?		
		Correct value provided?		
		Has this value been verified?		
		Choice of data correctly justified?		
		Measurement method correctly described?		

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B.6.2.24. Parameter Title: electricity imports	1, 2, 3			☑	☑
		Data Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
B.6.2.25. Parameter Title: CO2 emission coefficient of fuels used in connected grids	1, 2, 3			☑	☑
		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		



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		Choice of data correctly justified?	Yes							
		Measurement method correctly described?	Yes							
B.6.3. Ex-ante calculation of emission reductions										
B.6.3.1. Is the projection based on the same procedures as used for future monitoring?	1, 2, 3	Yes. The projection based on the same procedures is used for the future monitoring.			☑	☑				
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	1, 2, 3	Yes, the GHG calculations are documented in a complete and transparent manner.			☑	☑				
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 provided in this section is consistent with data as presented in other chapters of the PDD.			☑	☑				
B.6.3.4. Has the equation for calculating base-line emissions from electricity that is displaced by the project activity been used if project activity is use of waste pressure to generate electricity?	1, 2, 3	NA.			☑	☑				
B.6.3.5. Do the parameter of efficiency (n <sub>BL</sub> ) follow one of the stated demands?	1, 2, 3	<table><tr><th>Demand</th><th>Yes/No</th></tr><tr><td>i) Assume a constant efficiency of the <b>captive plant / element process / cogeneration plant</b> and determine the efficiency, as a conservative approach, for optimal operation conditions i.e. design fuel, designed steam extraction, optimal load, optimal oxygen content in flue gases, adequate fuel conditioning (temperature, viscosity, moisture, size/mesh etc), representative or favorable ambient conditions (temperature and humidity); or</td><td>NA</td></tr></table>			Demand	Yes/No	i) Assume a constant efficiency of the <b>captive plant / element process / cogeneration plant</b> and determine the efficiency, as a conservative approach, for optimal operation conditions i.e. design fuel, designed steam extraction, optimal load, optimal oxygen content in flue gases, adequate fuel conditioning (temperature, viscosity, moisture, size/mesh etc), representative or favorable ambient conditions (temperature and humidity); or	NA	☑	☑
Demand	Yes/No									
i) Assume a constant efficiency of the <b>captive plant / element process / cogeneration plant</b> and determine the efficiency, as a conservative approach, for optimal operation conditions i.e. design fuel, designed steam extraction, optimal load, optimal oxygen content in flue gases, adequate fuel conditioning (temperature, viscosity, moisture, size/mesh etc), representative or favorable ambient conditions (temperature and humidity); or	NA									

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		<p>ii) Highest of the efficiency values provided by two or more manufacturers for <b>power plants</b> / <b>element process</b> with specifications similar to that that would have been required to supply the recipient with electricity / heat / that it receives from the project activity; or</p> <p>Highest of the efficiency values provided by two or more manufacturers for <b>similar plants</b>, as used in the project activity; or</p>	NA	
		<p>iii) Assume a captive power generation efficiency of 60% based on the net calorific values as a conservative approach (<b>power plant</b>); or</p> <p>Maximum efficiency of 100% (<b>element process</b>); or</p> <p>Maximum efficiency of 90%, based on net calorific values (irrespective of type of cogeneration system and type of heat generated) (<b>cogeneration plant</b>); or</p>	NA	
		<p>iv) Estimated from load v/s efficiency curve(s) established for <b>equipment(s)</b> / <b>each element process</b> through measurement and described in Annex I; or</p> <p>Estimated from load v/s efficiency curve(s) established through measurement of the <b>cogeneration plants</b> and described in Annex I.</p> <p>Follow international standards for estimation of efficiency of power plants / individual element process / cogeneration plants.</p>	NA	

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B.6.3.6.Are the baseline emissions capped following one of the two methods described in the methodology (ACM0012)? Which method has been applied?	1, 2, 3	For a conservative purpose, a value of 0.95 is taken for $f_{cap}$ . <b>Corrective Action Request No.16.</b> Please indicate which method has been applied for $f_{cap}$ in the revised PDD. The basis for using the capped value, (including manufacturer's design document/letter and the expert's analysis) should be provided to DOE.	CAR 16	<input checked="" type="checkbox"/>
<b>B.6.4. Summary of the ex-ante estimation of emission reductions</b>				
B.6.4.1.Will the project result in fewer GHG emissions than the baseline scenario?	1, 2, 3	The project activity is going to replace the electricity supplied from the East China Power Grid, a grid mainly consisting of coal-fired plants. Hence, the project activity will result in fewer GHG than baseline scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.2.Is the form/table required for the indication of projected emission reductions correctly applied?	1, 2, 3	Yes, the required form is applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, 2, 3	The project activity is likely to be operated in Oct. 2008 however; the crediting period will start after the registration.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.4.Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	1, 2, 3	Yes, it is.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.7. Application of the monitoring methodology and description of the monitoring plan</b>				
<b>B.7.1. Data and parameters monitored</b>				
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	1, 2, 3	The project activity is likely to be commissioned in Oct. 2008 however; the crediting period will start after the registration.	CAR 17	<input checked="" type="checkbox"/>

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applied methodology?		<b><u>Corrective Action Request No.17.</u></b> The measurement method, accuracy, QA/QC procedures should be clearly described in the revised PDD according to the methodology.																										
B.7.1.2.Parameter Title: <b>FF<sub>i,y</sub></b> , quantity of fossil fuel type i combusted to supplement waste gas in the project activity during the year y, in energy or mass units (project emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	☑	☑
Monitoring Checklist	Yes / No																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	NA																											
Appropriate description of parameter?	NA																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.3.Parameter Title: <b>NCV<sub>i</sub></b> , net calorific value of the fossil fuel I (project emissions)	1, 2, 3	<b><u>Corrective Action Request No.18.</u></b> Please see B.6.1.4.  If the project emission is existing. Please add this parameter to B.7.1.  <table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	<b>CAR 18</b>	☑																		
Monitoring Checklist	Yes / No																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	NA																											

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		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.4.Parameter Title: $EF_{CO_2, i}$ CO2 emission factor per unit of energy or mass of the fuel type i (project emissions)	1, 2, 3	Please see B.7.1.3.		See CAR18	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.5.Parameter Title: $EC_{PJ, y}$ Additional electricity consumed in year y, for gas cleaning equipment, as a result of the implementation of the project activity. (project emissions)	1, 2, 3	Please see B.7.1.3.		See CAR18	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		

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		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.6.Parameter Title: <b>EF</b> <sub>CO2, EL, y</sub> CO2 emission factor for electricity consumed by the project activity in year y (project emissions)	1, 2, 3	Please see B.7.1.3.		See CAR18	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.7.Parameter Title: <b>FC</b> <sub>EL, CP, k, y</sub> Quantity of fuel type k combusted in the captive power plant at the project site in year y where k are the fuel types fired in the captive power plant at the project site in year y (project emissions)	1, 2, 3			☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		

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		Indication of accuracy provided?	NA																										
		QA/QC procedures described?	NA																										
		QA/QC procedures appropriate?	NA																										
B.7.1.8.Parameter Title: <b>NCV<sub>k</sub></b> Net calorific value of fuel type k where k are the fuel types fired in the captive power plant at the project site in year y (project emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	NA																												
Data unit correctly expressed?	NA																												
Appropriate description of parameter?	NA																												
Source clearly referenced?	NA																												
Correct value provided for estimation?	NA																												
Has this value been verified?	NA																												
Measurement method correctly described?	NA																												
Correct reference to standards?	NA																												
Indication of accuracy provided?	NA																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.9.Parameter Title: <b>EF<sub>CO2, k</sub></b> Emission factor of fuel type k where k are the fuel types fired in the captive power plant at the project site in year y (project emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	NA																												
Data unit correctly expressed?	NA																												
Appropriate description of parameter?	NA																												
Source clearly referenced?	NA																												
Correct value provided for estimation?	NA																												
Has this value been verified?	NA																												
Measurement method correctly described?	NA																												
Correct reference to standards?	NA																												
Indication of accuracy provided?	NA																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												

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B.7.1.10. Parameter Title: $EC_{CP,y}$ Quantity of electricity generated in the captive power plant at the project site in year y (project emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	NA																											
Appropriate description of parameter?	NA																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.11. Parameter Title: $WS_{i,j}$ fraction of total heat that is used by the recipient j in the project that in absence of the project activity would have been supplied by the ith boiler (baseline emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	NA																											
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Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
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Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.12. Parameter Title: $Q_{WG,y}$ quantity of waste gas used for energy generation during year y (Nm3)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											



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(baseline emissions)		<table> <tr><td>Data unit correctly expressed?</td><td>Yes</td></tr> <tr><td>Appropriate description of parameter?</td><td>Yes</td></tr> <tr><td>Source clearly referenced?</td><td>Yes</td></tr> <tr><td>Correct value provided for estimation?</td><td>Yes</td></tr> <tr><td>Has this value been verified?</td><td>Yes</td></tr> <tr><td>Measurement method correctly described?</td><td>Yes</td></tr> <tr><td>Correct reference to standards?</td><td>Yes</td></tr> <tr><td>Indication of accuracy provided?</td><td>Yes</td></tr> <tr><td>QA/QC procedures described?</td><td>Yes</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr> </table>	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes							
Data unit correctly expressed?	Yes																												
Appropriate description of parameter?	Yes																												
Source clearly referenced?	Yes																												
Correct value provided for estimation?	Yes																												
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Correct reference to standards?	Yes																												
Indication of accuracy provided?	Yes																												
QA/QC procedures described?	Yes																												
QA/QC procedures appropriate?	Yes																												
B.7.1.13.      Parameter Title: $EF_{elec,i,j}$ $CO_2$ emission factor for the electricity source i (i=gr (grid) or i=is (identified source)) , dis- placed due to the project activity, during the year y in tons $CO_2/MWh$ (baseline emissions)	1, 2, 3	<b><u>Corrective Action Request No.19.</u></b> The parameter $EF_{elec,i,j}$ should be added into B.7.1. of the PDD. <table> <tr><td>Monitoring Checklist</td><td>Yes / No</td></tr> <tr><td>Title in line with methodology?</td><td>No</td></tr> <tr><td>Data unit correctly expressed?</td><td>No</td></tr> <tr><td>Appropriate description of parameter?</td><td>No</td></tr> <tr><td>Source clearly referenced?</td><td>No</td></tr> <tr><td>Correct value provided for estimation?</td><td>No</td></tr> <tr><td>Has this value been verified?</td><td>No</td></tr> <tr><td>Measurement method correctly described?</td><td>No</td></tr> <tr><td>Correct reference to standards?</td><td>No</td></tr> <tr><td>Indication of accuracy provided?</td><td>No</td></tr> <tr><td>QA/QC procedures described?</td><td>NA</td></tr> <tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr> </table>		Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	CAR 19	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	No																												
Data unit correctly expressed?	No																												
Appropriate description of parameter?	No																												
Source clearly referenced?	No																												
Correct value provided for estimation?	No																												
Has this value been verified?	No																												
Measurement method correctly described?	No																												
Correct reference to standards?	No																												
Indication of accuracy provided?	No																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.14.      Parameter Title: $EF_{CO_2, is, j}$ $CO_2$ emission factor per unit of energy of the fossil fuel used in the baseline generation source i (i=is) providing energy to recipient j. (baseline emissions)	1, 2, 3	<table> <tr><td>Monitoring Checklist</td><td>Yes / No</td></tr> <tr><td>Title in line with methodology?</td><td>NA</td></tr> <tr><td>Data unit correctly expressed?</td><td>NA</td></tr> </table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
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Title in line with methodology?	NA																												
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		Appropriate description of parameter?	NA																										
		Source clearly referenced?	NA																										
		Correct value provided for estimation?	NA																										
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		Measurement method correctly described?	NA																										
		Correct reference to standards?	NA																										
		Indication of accuracy provided?	NA																										
		QA/QC procedures described?	NA																										
		QA/QC procedures appropriate?	NA																										
B.7.1.15. Parameter Title: <b>EF<sub>CO2, COGEN</sub></b> CO <sub>2</sub> emission factor per unit of energy of the fuel that would have been used in the base-line cogeneration plant (baseline emissions)	1, 2, 3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	☑	☑
Monitoring Checklist	Yes / No																												
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Measurement method correctly described?	NA																												
Correct reference to standards?	NA																												
Indication of accuracy provided?	NA																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.16. Parameter Title: <b>EG<sub>i,j,y</sub></b> quantity of electricity supplied to the recipient j by generator, which in the absence of the project activity would have sourced from l th source /l can be either grid or identified source) during the year y in MWh (baseline emissions)	1, 2, 3	<b><u>Corrective Action Request No.20.</u></b> Please clearly describe the correct reference standards, the accuracy and the QA/QC procedures. Please clarify why it is “Sum of readings of two auxiliary ammeters”. <table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	<b>CAR 20</b>	☑																		
Monitoring Checklist	Yes / No																												
Title in line with methodology?	Yes																												
Data unit correctly expressed?	Yes																												

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		Appropriate description of parameter?	Yes																										
		Source clearly referenced?	Yes																										
		Correct value provided for estimation?	Yes																										
		Has this value been verified?	Yes																										
		Measurement method correctly described?	Yes																										
		Correct reference to standards?	No																										
		Indication of accuracy provided?	No																										
		QA/QC procedures described?	Yes																										
		QA/QC procedures appropriate?	No																										
B.7.1.17. Parameter Title: <b>EG<sub>j,y</sub></b> quantity of electricity supplied to the recipient plant j by the project activity during the year y in MWh (baseline emissions)	1, 2, 3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
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Correct reference to standards?	NA																												
Indication of accuracy provided?	NA																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.18. Parameter Title: <b>HG<sub>j,y</sub></b> net quantity of heat supplied to the recipient plant j by the project activity during the year y in TJ. In case of steam this is expressed as difference of energy content between the steam supplied to the recipient plant and the condensate returned by the recipient plant(s) to element process of cogeneration plant. In	1, 2, 3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>												
Monitoring Checklist	Yes / No																												
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case of hot water/oil this is expressed as difference in energy content between the hot water/oil supplied to and returned by the recipient plant(s) to element process of co-generation plant) (baseline emissions)		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.19. Parameter Title: $EF_{CO_2, i, j}$ CO <sub>2</sub> emission factor per unit of energy of the baseline fuel used in ith boiler used by recipient j, in tCO <sub>2</sub> /TJ, in absence of the project activity (baseline emissions)	1, 2, 3	Monitoring Checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.20. Parameter Title: $EF_{CO_2, j}$ CO <sub>2</sub> emission factor of fossil fuel (tCO <sub>2</sub> /TJ) that would have been used at facility 'j' for flaring the waste gas (baseline emissions)	1, 2, 3	Monitoring Checklist	Yes / No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		

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		Indication of accuracy provided?	NA																										
		QA/QC procedures described?	NA																										
		QA/QC procedures appropriate?	NA																										
B.7.1.21. Parameter Title: $Q_{i,h}$ amount of individual fuel (waste gas and other fuel(s)) i consumed at the energy generation unit during hour h (baseline emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.22. Parameter Title: $EG_{tot,y}$ total annual energy produced at the cogeneration plants, with waste gas and fossil fuel (baseline emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	NA																												
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B.7.1.23. Parameter Title: $Q_{WG, h}$ quantity of waste gas used for energy generation per hour h (baseline emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
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Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.24. Parameter Title: $NCV_{WG}$ net Calorific Value of Waste Gas (baseline emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.25. Parameter Title: $ST_{whr, y}$ energy content of the steam generated in waste heat recovery boiler fed to turbine via	1, 2, 3	<b><u>Corrective Action Request No.21.</u></b> Please add the parameter $ST_{whr, y}$ to B.7.1. according to the methodology.	<b>CAR 21</b>	<input checked="" type="checkbox"/>																								

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common steam header (baseline emissions)		<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA		
Monitoring Checklist	Yes / No																											
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Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.26. Parameter Title: $ST_{other, y}$ energy content of the steam generated in other boilers fed to turbine via common steam header (baseline emissions)	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.27. Parameter Title: $EF_{heat, j, y}$ CO2 emission factor of the heat source that would have supplied the recipient plant j in	1, 2, 3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Monitoring Checklist	Yes / No																											
Title in line with methodology?	NA																											

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absence of the project activity, expressed in tCO2/TJ (baseline emissions)		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.28. Parameter Title: steam flow rate	1, 2, 3	Please see B.7.1.3.		See CAR 18	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.29. Parameter Title: pressure of steam	1, 2, 3			☑	☑
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		



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		Correct value provided for estimation?	NA			
		Has this value been verified?	NA			
		Measurement method correctly described?	NA			
		Correct reference to standards?	NA			
		Indication of accuracy provided?	NA			
		QA/QC procedures described?	NA			
		QA/QC procedures appropriate?	NA			
B.7.1.30. Parameter Title: temperature of steam/hot water/hot oil	1, 2, 3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Monitoring Checklist	Yes / No			
		Title in line with methodology?	NA			
		Data unit correctly expressed?	NA			
		Appropriate description of parameter?	NA			
		Source clearly referenced?	NA			
		Correct value provided for estimation?	NA			
		Has this value been verified?	NA			
		Measurement method correctly described?	NA			
		Correct reference to standards?	NA			
		Indication of accuracy provided?	NA			
		QA/QC procedures described?	NA			
		QA/QC procedures appropriate?	NA			
B.7.1.31. Parameter Title: $n_{BL,t}$ efficiency of element process/captive power plant/cogeneration plant during time interval t where t is a discrete time interval during the year y (baseline emissions)	1, 2, 3				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Monitoring Checklist	Yes / No			
		Title in line with methodology?	NA			
		Data unit correctly expressed?	NA			
		Appropriate description of parameter?	NA			
		Source clearly referenced?	NA			
		Correct value provided for estimation?	NA			
		Has this value been verified?	NA			

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		Measurement method correctly described?	NA	
		Correct reference to standards?	NA	
		Indication of accuracy provided?	NA	
		QA/QC procedures described?	NA	
		QA/QC procedures appropriate?	NA	
<b>B.7.2. Description of the monitoring plan</b>				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1, 2, 3	Yes, the operational and management structure is clearly described and in compliance with the envisioned situation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1, 2, 3	Yes, the monitoring responsibilities and institutional arrangements for data collection and archiving are clearly provided.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1, 2, 3	Yes, the monitoring plan provides current good monitoring practice.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1, 2, 3	NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.8. Date of completion of the application of the baseline study and monitoring methodology on the name of the responsible person(s)/entity(ies)</b>				
B.8.1.1. Is there any indication of a date when the baseline was determined?	1, 2, 3	Yes, the baseline is determined on 5 <sup>th</sup> Nov., 2006. <b><u>Corrective Action Request No.22.</u></b> The "DD/MM/YYYY" format should be used in the revised PDD.	<b>CAR 22</b>	<input checked="" type="checkbox"/>
B.8.1.2. Is this consistent with the time line of the PDD history?	1, 2, 3	Yes. It is consistent with the time line of the PDD history.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.3. Is the information on the person(s) / entity(ies) responsible for the application of	1, 2,	Yes, the persons from entity indicated in the PDD are also the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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the baseline and monitoring methodology provided consistent with the actual situation?	3	ones being interviewed for baseline verification.		
B.8.1.4. Is information provided whether this person / entity is also considered a project participant?	1, 2, 3	The above individuals or organizations are not the project participants.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>C. Duration of the project activity / crediting period</b>				
<b>C.1. Duration of the project activity</b>				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	1, 2	Yes, the project's starting date is Oct. 01 <sup>st</sup> , 2007, the expected operational life time of the project activity is 21 years. Please see B.8.1.1.	See CAR 22	<input checked="" type="checkbox"/>
<b>C.2. Choice of the crediting period and related information</b>				
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, 2	More than 20 years of life time is expected, hence, the choice of fixed crediting period of 10 years seems reasonable. <b><u>Corrective Action Request No.23.</u></b> 1. The renewable crediting period is chose which is inconsistent with others chapters of the PDD. Please resolve this inconsistency. 2. The starting date of the first crediting period should be "November 1 <sup>st</sup> , 2008 or the date of registration whichever is later". 3. Please see B.1.1.	CAR 23	<input checked="" type="checkbox"/>

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<b>D. Environmental impacts</b>				
<b>D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts</b>				
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 noise pollution, atmosphere pollution, waste water pollution and solid pollution and measures taken during construction and operation periods have been clearly described.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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, the project is in conformity with the environmental legislation of P. R. China and the EIA has been approved by Jiangsu Province Environmental Protection Bureau on 28 <sup>th</sup> May, 2007. <b><u>Corrective Action Request No.24.</u></b> The date of approval is 28 <sup>th</sup> May, 2007 in fact which is different from the date mentioned in the PDD. Please correct it.	<b>CAR 24</b>	<input checked="" type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.4. Were transboundary environmental impacts identified in the analysis?	1, 8, 9	The proposed project activity is located within China. Hence, this section is not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>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</b>				
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1, 8, 9	Yes, adequate measures have been taken to control air pollution from the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.2. Does the project comply with environmental legislation in the host country?	1, 8, 9	Yes, the project complies with the environmental legislation in the host country.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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<b>E. Stakeholders' comments</b>				
<b>E.1. Brief description how comments by local stakeholders have been invited and compiled</b>				
E.1.1. Have relevant stakeholders been consulted?	1, 17, 18	In April, 2007, the project owner has pasted some bulletins in government site and factory, and investigated the residents around the power plants of the project by symposium. The summary of the symposium has been narrated in the section E.2.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1, 17, 18	Please see E.1.1 of the protocol.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1, 17, 18	There are no regulations/laws in China for carrying out the stakeholder consultation process for this project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1, 17, 18	Yes, verified by the detailed documents, such as bulletins and the record of the meeting, the process is described in a complete and transparent manner.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.2. Summary of the comments received</b>				
E.2.1. Is a summary of the received stakeholder comments provided?	1, 17, 18	The comments from stakeholders are collected and recorded in the meeting memo which has been reviewed by the auditor. <b><u>Corrective Action Request No.25.</u></b> The symposium was held on April 24 <sup>th</sup> , 2007 in fact which is different from April 20 <sup>th</sup> mentioned in the PDD. Please correct it.	<b>CAR 25</b>	<input checked="" type="checkbox"/>
<b>E.3. Report on how due account was taken of any comments received</b>				
E.3.1. Has due account been taken of any stakeholder comments received?	1, 17,	Referring to the PDD and the evidence provided on site, all the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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	18	received comments are positive.		
<b>F. Annexes 1 - 4</b>				
<b>F.1. Annex 1: Contact Information</b>				
F.1.1. Is the information provided consistent with the one given under section A.3?	1	Yes, the provided information is consistent with the one given under section A.3.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.2. Is the information on all private participants and directly involved Parties presented?	1	Yes, it is.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.2. Annex 2: Information regarding public funding</b>				
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 the protocol.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.3. Annex 3: Baseline information</b>				
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, 2, 3	Yes, the information is consistent with data presented by other sections of the PDD. <b><u>Corrective Action Request No.26.</u></b> It is mentioned that "Table A1-A3 are the basic data of the East China Power Grid from 2002 to 2004" which is different from the data in the tables. Please resolve this inconsistency and revise the footnote accordingly.	<b>CAR 26</b>	<input checked="" type="checkbox"/>
F.3.2. If additional background informa-	1, 2,	Yes, the data are verified by the DOE during on-site audit. And	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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tion on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?	3	the sufficient evidence is provided to the validation team		
F.3.3. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1, 2, 3	Yes, the additional information supports statements given in other sections of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.3.4. Does the additional information substantiate / support statements given in other sections of the PDD?	1, 2, 3	The additional information supports statements given in other sections of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.4. Annex 4: Monitoring information</b>				
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, 2	NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1, 2	NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1, 2	NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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**Table 2 Resolution of Corrective Action and Clarification Requests**

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
<b><u>Corrective Action Request No.1.</u></b> The jobs would be offered is 15 in the FSR not 18 mentioned in the PDD. Please correct it.	A.2.3.	This issue has been revised in A.2 of the revised PDD	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Open issue 1</u></b> Pls. deliver the LoA issued by China together with MoC to DOE before raising the request of registration.	A.3.2.	The LoAs and the MoC have been provided to the DOE.	<input checked="" type="checkbox"/> The LoAs and the MoC have been verified by the local auditor.
<b><u>Corrective Action Request No.2.</u></b> The description of the grid connection system is different from the FSR. Please resolve this inconsistency.	A.4.3.5	This issue has been revised in A.4.3 of the revised PDD.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.3.</u></b> Please add a time schedule of the project activity into the revised PDD.	A.4.3.10.	The time schedule has been added in B.5 of the revised PDD.	<input checked="" type="checkbox"/> The time schedule finally is chronological and plausible. The issue is considered to be resolved.



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<p><b><u>Corrective Action Request No.4.</u></b></p> <ol style="list-style-type: none"> <li>1. The crediting period (Oct. 1<sup>st</sup>, 2008-Oct. 31<sup>st</sup>, 2008) is not applicable. Please modify the crediting period and update the emissions reduction figures in the PDD (indicate the month exactly figures for the first and the last year of the crediting period) and accordingly revise the form in B.6.4 of the PDD.</li> <li>2. The presented table does not have any identification name and number (i.e. Table 2). Please extend this issue to the rest of the tables of the PDD.</li> </ol>	<p>A.4.4.1.</p>	<ol style="list-style-type: none"> <li>1. This issue has been revised in A.4.4 of the revised PDD.</li> <li>2. Identification name and number of all the tables are Revised.</li> </ol>	<p><input checked="" type="checkbox"/></p> <p>The issues have been verified by the local auditor in the revised PDD.</p> <p>Issues are considered to be resolved.</p>
<p><b><u>Corrective Action Request No.5.</u></b></p> <p>Please describe the baseline scenario alternatives according to the methodology in the same manner.</p>	<p>B.4.2.</p>	<p>Revised according to methodology in the same manner. See B.4.</p>	<p><input checked="" type="checkbox"/></p> <p>The baseline scenario alternatives have finally been described according to the methodology. The issue is considered to be resolved.</p>
<p><b><u>Corrective Action Request No.6.</u></b></p> <ol style="list-style-type: none"> <li>1. Please clarify the meaning of "These actual and feasible substitutable scheme will become (a part of) baseline scenario."</li> <li>2. "Tools for the demonstration and assessment of additionality" should be "Tool for the demonstration and assessment of additionality". Please correct it.</li> </ol>	<p>B.5.2.</p>	<ol style="list-style-type: none"> <li>1. This sentence has been deleted in B.5 of the revised PDD.</li> <li>2. Revised and extend such kind of issue to other chapters of the PDD.</li> </ol>	<p><input checked="" type="checkbox"/></p> <p>The issues have been verified by the local auditor in the revised PDD.</p> <p>Issues are considered to be resolved.</p>

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<p><b><u>Corrective Action Request No.7.</u></b></p> <p>Please indicate the version and the year published in the footnote 5 of the PDD.</p>	B.5.5.	This issue has been revised in B.5 of the revised PDD.	<p><input checked="" type="checkbox"/></p> <p>The issue has been verified by the local auditor in the revised PDD.</p> <p>The issue is considered to be resolved.</p>
<p><b><u>Corrective Action Request No.8.</u></b></p> <ol style="list-style-type: none"> <li>1. Some calculation results are wrong in the Chinese IRR calculation spreadsheet such as the maintenance fee, other fees, sale fax and annex.</li> <li>2. The total investment is 56.53 million yuan according to the financial section of the FSR different from 55.39 mentioned in the PDD. Please correct it and accordingly revise the IRR calculation.</li> <li>3. The education appended fee is 3% of VAT according to the FSR different from 4 % mentioned in the PDD. Please correct it and accordingly revise the IRR calculation.</li> <li>4. The expected CERs price is 10.6\$ in fact. Please correct it.</li> </ol>	B.5.6.	<ol style="list-style-type: none"> <li>1. This inconsistency has been revised. Please see IRR table in English.</li> <li>2. Revised to 56.53 million Yuan in B.5.</li> <li>3. This issue has been revised in B.5. of the revised PDD. The education appended fee has been revised to 3% of VAT; And IRR table is revised accordingly.</li> <li>4. This issue has been revised in the revised IRR table</li> </ol> <p>Because extra power reserve fees is going to be charged by power supply company for captive power station.</p> <p>So, the expected price used in PDD is lower than the price that the project owner buying electricity. Evidence for Electricity price calculation is provided. The price of 0.323 used is conservative.</p>	<p><input checked="" type="checkbox"/></p> <p>The issues have been verified by the local auditor in the revised PDD.</p> <p>Issues are considered to be resolved.</p> <p><u>Open issue 2 raised by DOE:</u></p> <p>Electricity price for Jiangsu Province is far too low with 0,332 Yuan/kWh (according to NDRC provincial electricity price list of 2007 it is rather 0,59 Yuan/kWh), i.e. the applied figure is not conservative and need to be justified.</p> <p><u>Answer of PP (see left column):</u></p> <p><u>DOE:</u> Closed</p>

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		<p>First, for the proposed project is still under construction, there is no enough data to calculate the exact total investment. Second, total investments in the China are similar. Example:</p> <p>1) Project 1659 : 13.5MW(9+4.5MW) WHR Project in Hunan Niuli Cement Co., Ltd.  <a href="http://cdm.unfccc.int/Projects/DB/TUEV-SUED1204559058.53/view">http://cdm.unfccc.int/Projects/DB/TUEV-SUED1204559058.53/view</a>  Capital cost is 5069.35* 10<sup>4</sup> Yuan RMB/Year;</p> <p>2) Project 1309(7.5+6 MW) : Jiangsu Qingshi Cement Plant's Low Temperature Waste Heat Power Generation Project;  <a href="http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1188202627.76/view">http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1188202627.76/view</a>  The Capital cost is 5775*10<sup>4</sup>Yuan RMB/Year; from the example provided, it is clearly that the total investments of comparable scale project in the China are in the same level. So, the total investment of Project Shuanglong is believable.</p>	<p><u>Open issue 3 raised by DOE:</u>  PDD, table B.5.2: as for the total investment, please demonstrate in the PDD how the figure was confirmed apart from the FSR, give evidence if applicable.</p> <p><u>Answer of PP (see left column):</u></p>
			DOE: Closed
<p><b><u>Corrective Action Request No.9.</u></b></p> <p>1. "To determine that if there are certain barriers, which would prevent the im-</p>	B.5.8.	PDD has been revised as required.	<p><input checked="" type="checkbox"/></p> <p>The issues have been veri-</p>

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<p>plementation of the type of project activity from being carried out if the project activity was not registered as a CDM activity" should be deleted in the revised PDD.</p> <p>2. Please show some special barriers of the propose project in the revised PDD.</p>			<p>fied by the local auditor in the revised PDD.</p> <p>Issues are considered to be resolved.</p>
<p><b><u>Corrective Action Request No.10.</u></b></p> <p>The discussion of the Sub-step 4 b is confused. Please clarify it in the revised PDD.</p>	B.5.12.	Clarified in Sub-step 4.	<p><input checked="" type="checkbox"/></p> <p>The discussion of sub-step 4 is now more transparent. The issue is considered to be resolved.</p>
<p><b><u>Corrective Action Request No.11.</u></b></p> <p>1. In B.6.1 step 1, it is mentioned "The annual product for a 500t/d cement line is 155*10<sup>4</sup>t clinker;" but in fact, it is a 5000t/d cement line. Please extend this issue to other parts of the PDD.</p> <p>2. It is mentioned "This PDD refers to the Operating Margin (OM) Emission Factor and the Build Margin (BM) Factor published by the Chinese DNA on Dec.15<sup>th</sup> 2006" which is different from Annex 3. Please resolve this inconsistency and update the data in consistent with other chapters of the PDD.</p>	B.6.1.3.	<p>1. This issue has been revised in B.6.1of the revised PDD.</p> <p>2. This description has been deleted in B.6.1 of the revised PDD.</p>	<p><input checked="" type="checkbox"/></p> <p>The issues have been verified by the local auditor in the revised PDD.</p> <p>Issues are considered to be resolved.</p>
<p><b><u>Corrective Action Request No.12.</u></b></p> <p>In B.3 of the project boundary description, CO<sub>2</sub> emission from supplemental electricity</p>	B.6.1.4.	It has been revised. Supplemental electricity consumption is deducted from EG <sub>y</sub> , and electricity consumption of cleaning of gas in the project is considered to be	<p><input checked="" type="checkbox"/></p> <p>The issue has been verified by the local auditor in the</p>

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consumption and cleaning of gas has been mentioned in the project emission. But the corresponding discussion is absent in B.6.3 of the project emission of the PDD.		zero.	revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.13.</u></b> The formulae required for the determination of emission reductions aren't presented in the PDD. Please resolve this issue.	B.6.1.5.	This issue has been revised in B.6.1 of the revised PDD.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.14.</u></b> Please justify, why the data of $NCV_i$ is from China Energy Statistical Yearbook 2004? Please provide the detailed information for "Quote from DNA data".	B.6.2.1.	This issue has been revised in B.6.2 of the revised PDD.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.15.</u></b> The correct value of $q_{wg, product}$ should be indicated in the revised PDD.	B.6.2.15.	This issue has been revised in B.6.2 of the revised PDD.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.16.</u></b> Please indicate which method has been applied for $f_{cap}$ in the revised PDD. The basis for using the capped value, (including manufacturer's design document/letter and the expert's analysis) should be provided to DOE.	B.6.3.6.	Please see Page 24-5 in PDD for details. And expert's analysis is provided. ( see Explanation of waste heat )	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The evidence "explanation of waste heat" has been verified by the local auditor. The issue is considered to be

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			resolved.
<b><u>Corrective Action Request No.17.</u></b> The measurement method, accuracy, QA/QC procedures should be clearly described in the revised PDD according to the methodology.	B.7.1.1.	This issue has been revised in B.7.1 of the revised PDD.	<input checked="" type="checkbox"/> The issue is finally considered to be resolved, PDD has been amended for all monitoring parameters.
<b><u>Corrective Action Request No.18.</u></b> Please see B.6.1.4. If the project emission is existing. Please add this parameter to B.7.1.	B.7.1.3. B.7.1.4. B.7.1.5. B.7.1.6. B.7.1.28.	There is no project emission. So, there is no need to add this parameter.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.19.</u></b> The parameter $EF_{elec,l,j}$ should be added into B.7.1. of the PDD.	B.7.1.13.	This issue has been revised in B.7.1 of the revised PDD.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.20.</u></b> Please clearly describe the correct reference standards, the accuracy and the QA/QC procedures. Please clarify why it is "Sum of readings of two auxiliary ammeters".	B.7.1.16.	Revised. In fact, there is no need to monitor the data of auxiliary ammeter. Only net electricity supplied need to be monitored.	<input checked="" type="checkbox"/> The issue is considered to be resolved.
<b><u>Corrective Action Request No.21.</u></b> Please add the parameter $ST_{whr,y}$ to B.7.1. according to the methodology.	B.7.1.25	$ST_{whr,y}$ is a parameter use for calculating fwg, but for this project, fwg=1; there is no need to calculate it, and so there is no need to monitor $ST_{whr,y}$ . Please confirm it.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be

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			resolved.
<b><u>Corrective Action Request No.22.</u></b> The "DD/MM/YYYY" format should be used in the revised PDD.	B.8.1.1. C.1.1. C.2.1.	This issue has been revised in B.8 of the revised PDD.	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.23.</u></b> 1. The renewable crediting period is chose which is inconsistent with others chapters of the PDD. Please resolve this inconsistency. 2. The starting date of the first crediting period should be "November 1 <sup>st</sup> , 2008 or the date of registration whichever is later". 3. Please see B.1.1.	C.2.1.	1. This issue has been revised in C.2 of the revised PDD. 2. This issue has been revised in C.2 of the revised PDD. . 3. This issue has been revised in C.2 of the revised PDD.	<input checked="" type="checkbox"/> The issues have been verified by the local auditor in the revised PDD. Issues are considered to be resolved.
<b><u>Corrective Action Request No.24.</u></b> The date of approval is 28 <sup>th</sup> May, 2007 in fact which is different from the date mentioned in the PDD. Please correct it.	D.1.2.	This issue has been revised in D.1of the revised PDD	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.
<b><u>Corrective Action Request No.25.</u></b> The symposium was held on April 24 <sup>th</sup> , 2007 in fact which is different from April 20 <sup>th</sup> mentioned in the PDD. Please correct it.	E.2.1.	This issue has been revised in E.2 of the revised PDD	<input checked="" type="checkbox"/> The issue has been verified by the local auditor in the revised PDD. The issue is considered to be resolved.

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<p><b><u>Corrective Action Request No.26.</u></b></p> <p>It is mentioned that "Table A1-A3 are the basic data of the East China Power Grid from 2002 to 2004" which is different from the data in the tables. Please resolve this inconsistency and revise the footnote accordingly.</p>	F.3.1.	This issue has been revised in annex 03. of the revised PDD	<p><input checked="" type="checkbox"/></p> <p>The issue has been verified by the local auditor in the revised PDD.</p> <p>The issue is considered to be resolved.</p>
<p><b><u>Clarification Request No. 1.</u></b></p> <p>Please provide the evidence for the benchmark 12% and other evidences mentioned as footnotes.</p>	B.5.5.	Evidence provided.	<p><input checked="" type="checkbox"/></p> <p>The evidence IRL No. 6 with the definition of the IRR benchmark has been delivered and verified by the local auditor.</p> <p>The issue is considered to be resolved.</p>
<p><b><u>Clarification Request No. 2.</u></b></p> <p>Please provide the IRR calculation spreadsheet with the formula in English to the audit team.</p>	B.5.6.	Provided.	<p><input checked="" type="checkbox"/></p> <p>The IRR calculation spreadsheet has been delivered and verified by the local. The data quoted and the IRR with or without CDM income are the same as the ones in the PDD and the FSR.</p> <p>The issue is considered to be resolved.</p> <p><u>Open Issues 4 raised by DOE:</u></p> <p>① Operational costs are relatively high compared to investment costs and need to be justified.</p>



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		<p>② Furthermore, the indicated figure in the PDD is not consistent with the yearly figure in the Excel Sheet Calculation</p> <p>③ and, generally, the transparency of the calculation would be higher by linking the figures of the folder "Indicator" with those of "CDM".</p> <p><u>Response of PP (see column left):</u></p> <p>1) Reference Project 1659 : 13.5MW(9+4.5MW) WHR Project in Hunan Niuli Cement Co., Ltd.  <a href="http://cdm.unfccc.int/Projects/DB/TUEV-SUED1204559058.53/view">http://cdm.unfccc.int/Projects/DB/TUEV-SUED1204559058.53/view</a>  The operation cost of 9 MW waste heat project is <math>1254.17 \times 10^4</math> Yuan RMB/Year; Capital cost is <math>5069.35 \times 10^4</math> Yuan RMB/Year; (OM cost takes a proportion of 24.74% compared with capital cost). The operation cost of 4.5MW waste heat project is <math>617.35 \times 10^4</math> Yuan RMB/Year; Capital cost is <math>3548.73 \times 10^4</math> Yuan RMB/Year; (OM cost takes a proportion of 19.7% compared with capital cost 17.39%) .</p> <p>2) Reference Project 1309(7.5+6MW) : Jiangsu Qingshi Cement Plant's Low Temperature Waste Heat Power Generation Project;  <a href="http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1188202627.76/view">http://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1188202627.76/view</a>  The operation cost of 6 MW waste heat project is <math>710.6 \times 10^4</math> Yuan RMB/Year; Capital cost is <math>4635 \times 10^4</math> Yuan RMB/Year; (OM cost takes a proportion of 15.33% compared with capital cost). The operation cost of 7.5MW waste heat project is <math>1133 \times 10^4</math> Yuan RMB/Year; Capital cost is <math>5775 \times 10^4</math> Yuan</p>	
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		<p>RMB/Year; (OM cost takes a proportion of 19.6% compared with capital cost) .</p> <p>3) Reference Project 1402 : BBMG Cement WHR for 10.5(6+4.5) MW power generation project in Beijing  <a href="http://cdm.unfccc.int/Projects/DB/SGSUKL1193135464.43/view">http://cdm.unfccc.int/Projects/DB/SGSUKL1193135464.43/view</a></p> <p>The operation cost of 4.5MW waste heat project is 9,099,781.51Yuan RMB/Year; Capital cost is 46,150,000 Yuan RMB/Year; (OM cost takes a proportion of 19.7% compared with capital cost) . The operation cost of 6 MW waste heat project is 10,300,472 Yuan RMB/Year; Capital cost is 46,325,500 Yuan RMB/Year; (OM cost takes a proportion of 22.23% compared with capital cost). For project Shuanglong: The operation cost is 10,040,000 Yuan RMB/Year; Capital cost is <math>56.53 \times 10^6</math> Yuan RMB; Proportion is 17.76%; Conclusion: Compared with all the projects above, it is clear that the OM cost of project is among the normal level of cement companies in China. It is not high but believable and reasonable.</p>	DOE: closed
<p><b><u>Clarification Request No. 3.</u></b></p> <p>Please provide transparent and documented evidences for the barriers mentioned in the PDD.</p>	B.5.9.	Evidence provided.	<p><input checked="" type="checkbox"/></p> <p>See CR 1, CR 2, CAR 7 and CAR8, the issue is considered to be resolved.</p>

**Table 3 Unresolved Corrective Action and Clarification Requests (in case of denials)**


Clarifications and / or corrective action requests by validation team	Id. of CAR/CR	Explanation of Conclusion for Denial
-	-	-




## **Annex 2: Information Reference List**

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Reference No.	Document or Type of Information																				
1.	Project Design Document for CDM project “Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project”, version 01, August 22, 2007 and version 02, June 27, 2008																				
2.	Approved consolidated baseline methodology AM0012/Version 1																				
3.	Tool for the demonstration and assessment of additionality, version 04																				
4.	Participant list of on-site interview, signed on 25 <sup>th</sup> September, 2007																				
5.	<p>On-site interviews at the project site at Xinjie Town, Yixing City, Jiangsu Province (south), P. R. China, conducted on 25<sup>th</sup> September, 2007 by audit team from TÜV-SÜD.</p> <p>Validation team:</p> <table> <tr> <td>Ms. Li Xuemei</td><td>CDM Auditor, TÜV SÜD Guangzhou Branch</td></tr> </table> <p>Interviewed persons:</p> <table> <tr> <td>Mr. Zhang Junwei</td><td>Vice General Manager, Yixing Shuanglong Cement Co., Ltd.</td></tr> <tr> <td>Mr. Sun Rongsen</td><td>Engineer, Yixing Shuanglong Cement Co., Ltd.</td></tr> <tr> <td>Mr. Zhang Qixing</td><td>Associate Engineer, Yixing Shuanglong Cement Co., Ltd.</td></tr> <tr> <td>Mr. Yao Yan</td><td>Delegate of Employees, Yixing Shuanglong Cement Co., Ltd.</td></tr> <tr> <td>Mr. Ji Jianxin</td><td>Stakeholder</td></tr> <tr> <td>Mr. Duan Jianping</td><td>Engineer, Productivity Centre of Jiangsu Province</td></tr> <tr> <td>Mr. Xue Jieming</td><td>Director Assistant, Productivity Centre of Jiangsu Province</td></tr> <tr> <td>Mr. Hiroji Tate</td><td>Senior Adviser, Marubeni Co., Ltd. (Buyer)</td></tr> <tr> <td>Mr. Wang Xin</td><td>Manager, Marubeni Co., Ltd. (Buyer)</td></tr> </table>	Ms. Li Xuemei	CDM Auditor, TÜV SÜD Guangzhou Branch	Mr. Zhang Junwei	Vice General Manager, Yixing Shuanglong Cement Co., Ltd.	Mr. Sun Rongsen	Engineer, Yixing Shuanglong Cement Co., Ltd.	Mr. Zhang Qixing	Associate Engineer, Yixing Shuanglong Cement Co., Ltd.	Mr. Yao Yan	Delegate of Employees, Yixing Shuanglong Cement Co., Ltd.	Mr. Ji Jianxin	Stakeholder	Mr. Duan Jianping	Engineer, Productivity Centre of Jiangsu Province	Mr. Xue Jieming	Director Assistant, Productivity Centre of Jiangsu Province	Mr. Hiroji Tate	Senior Adviser, Marubeni Co., Ltd. (Buyer)	Mr. Wang Xin	Manager, Marubeni Co., Ltd. (Buyer)
Ms. Li Xuemei	CDM Auditor, TÜV SÜD Guangzhou Branch																				
Mr. Zhang Junwei	Vice General Manager, Yixing Shuanglong Cement Co., Ltd.																				
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Mr. Zhang Qixing	Associate Engineer, Yixing Shuanglong Cement Co., Ltd.																				
Mr. Yao Yan	Delegate of Employees, Yixing Shuanglong Cement Co., Ltd.																				
Mr. Ji Jianxin	Stakeholder																				
Mr. Duan Jianping	Engineer, Productivity Centre of Jiangsu Province																				
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Reference No.	Document or Type of Information
6.	Feasibility Study Report of Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project, by Luoyang Mining Machinery, in January 2007, including Project Financial Assessment Methods and Indicators, 3. Edition (IRR benchmark)
7.	Approval of Feasibility Study Report by Economy and Trade Committee of Jiangsu Province, 4 <sup>th</sup> July, 2007, [2007] #535.
8.	Environmental Impact Assessment of Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project, Issued by Jiangsu Sunny Environmental Protection Engineering Co., Ltd., 15 <sup>th</sup> April, 2007.
9.	Approval of the EIA of Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project, issued by Jiangsu Province Environmental Protection Bureau, 28 <sup>th</sup> May, 2007, [2007] #98.
10.	“Certificate for the Use of State-owned Land“, #000280 [2004, - by Ministry of Land and Resources P. R. C
11.	“CDM Protocol on Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project” signed by Yixing Shuanglong Cement Co., Ltd. (Party A) Marubeni Co., Ltd. (Party B), Date: 28 <sup>th</sup> August, 2007.
12.	“Process Schedule of Low Temperature Waste Heat Power Generation Project” by Yixing Shuanglong Cement Co., Ltd. Date: 30 <sup>th</sup> July, 2007.
13.	Agreement of the CDM Project, Management Meeting, Date: 8 <sup>th</sup> October, 2006.
14.	Preparation of the CDM Project, Management Meeting, Date: 28 <sup>th</sup> October, 2006.
15.	Discussion on the CDM Project, Management Meeting, Date: 10 <sup>th</sup> November, 2006.
16.	Discussion on the CDM Project, Management Meeting, Date: 20 <sup>th</sup> November, 2006.
17.	Paper Inform of Stakeholders' Meeting for “Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project”, Date: 20 <sup>th</sup> April, 2007.
18.	Stakeholders' Meeting Record on 24 <sup>th</sup> April, 2007.

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Reference No.	Document or Type of Information
19.	“Cooperation Protocol on Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project”, signed by Yixing Shuanglong Cement Co., Ltd. (Party A) and CITIC Heavy Machinery Inc. (Party B), Date: 10 <sup>th</sup> January, 2007.
20.	“Technical Service Contract on CDM Project”, signed by Yixing Shuanglong Cement Co., Ltd. (Party A) and Productivity Centre of Jiangsu Province (Party B), Date: 12 <sup>th</sup> June, 2007.
21.	Loan Agreement (RMB 25,000,000), signed by Jiangsu Weifeng Construction & Installation Group Co., Ltd. (Party A) and Yixing Shuanglong Cement Co., Ltd. (Party B), Date: 23 <sup>rd</sup> June, 2006.
22.	Loan Agreement (RMB 25,000,000), signed by Yixing Yicheng Real Estate Development Co., Ltd. (Party A) and Yixing Shuanglong Cement Co., Ltd. (Party B), Date: 23 <sup>rd</sup> June, 2006.
23.	Loan Agreement (RMB 25,000,000), signed by Yixing Tongfeng Construction & Development Co., Ltd. (Party A) and Yixing Shuanglong Cement Co., Ltd. (Party B), Date: 23 <sup>rd</sup> June, 2006.
24.	Loan Agreement (RMB 25,000,000), signed by Yixing Taodu Real Estate Development Co., Ltd. (Party A) and Yixing Shuanglong Cement Co., Ltd. (Party B), Date: 23 <sup>rd</sup> June, 2006.
25.	Loan Agreement (RMB 19,000,000 enhanced), signed by Jiangsu Yixing Rural Credit Cooperative Union (Party A) and Yixing Shuanglong Cement Co., Ltd. (Party B), Date: 10 <sup>th</sup> March, 2007.
26.	Documented Policy from the Wuxi Branch of the People's Bank of China, [2007]#98, “Guideline on Loan”, Date: 6 <sup>th</sup> September, 2007. The guideline prescribes that the banks should classify and manage the “84 high energy used & high pollution companies”; the application of loan to cement companies will not be allowed. Yixing Shuanglong Cement Co., Ltd. is included in these 84 companies.
27.	“Financing Scheme on Jiangsu Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project”, by Yixing Shuanglong Cement Co., Ltd. Date: 25 <sup>th</sup> September, 2007.
28.	Yixing Shuanglong Cement Co., Ltd: Investment Discussion of Waste Heat Recovery Project, October 8, 2006

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Reference No.	Document or Type of Information
29.	LoA of Japan, January 22, 2008
30.	LoA of China, February 2008
31.	MoC Modalities for Communication for Shuanglong project, October 11, 2007
32.	Excel Spread Sheet with electricity price prediction, June 27, 2008
33.	Annex of with key financial figures, published by the council of China, November 13, 1993
34.	Financial Section of FSR (see IRL 6)
35.	Explanation of Waste Heat of new type dry cement, published by Nanjing Kaisheng Cement Industry Design Institute, April 2008
36.	Guidance of Credits and Loan of Wuxi Branch Bank of China,file No. XiYin Fa [2007] 98#
37.	Jiangsu Province Price Bureau (Government Authority in charge of price policies): Power Reserve Fee, Mai 9, 2008
38.	FSR design institute: Luoyang Mine& Mechanic Design Institute Project Manager: Clarification for electricity prediction Shuanglong, Mai 9, 2008
39.	Excel Spread Sheet with IRR calculation, June 27, 2008
40.	Document of Wuxi Branch of People's Bank of China; Guidance for loan of financial system; September 6, 2007
41.	Economy and Commerce Commission of Jiangsu Province, List of companies that prepare to or have applied for CDM; June 27, 2007
42.	Jiangsu Province Economy and Trade Committee (Government authority in charge of project approval ): Approval of Yixing Shuanglong Cement Plant's Low Temperature Waste Heat Power Generation Project and evidence to apply for CDM support; July 4, 2007