

# PoA VALIDATION REPORT

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**Henan BCCY New Power Industry Co.,  
Ltd.**

**Henan BCCY New Power Industry  
Co., Ltd. LFG recovery to power  
Programme of Activities**

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**SGS Climate Change Programme**

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<b>Date of Issue:</b>	<b>Programme of Activity Number:</b>
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Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities	
<b>Organisation:</b>	<b>Client / Managing Entity:</b>
SGS United Kingdom Limited	Henan BCCY New Power Industry Co., Ltd.
<b>Publication of PoA-DD, Generic CPA-DD and Specific CPA-DD for Global Stakeholders Consultation:</b>	
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Final Generic CPA-DD Version and Date:	Version 3.2 dated 24/12/2012
<b>Summary:</b>	
<p>Henan BCCY New Power Industry Co., Ltd. has commissioned SGS to perform the validation of the Programme of Activity: Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities.</p> <p>Methodology Used:</p> <p>AMS-III.G: Landfill Methane Recovery, version 7.0, dated 29/09/2011</p> <p>AMS-I.D: Grid connected renewable electricity generation, version 17.0, dated 03/06/2011</p> <p>The scope of the validation is defined as an independent and objective review of the Programme of Activity design document, the Programme of Activity's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against CDM POA Validation and Verification Standard (Version 03.0), Kyoto Protocol requirements, CDM POA Executive Board/UNFCCC rules.</p> <p>The report is based on the assessment of the Programme of Activity design document (PoA DD), Generic and specific Component project activity design document (CPA DD) undertaken through stakeholder consultations, application of standard auditing techniques including but not limited to document reviews, follow up onsite visit and also the review of the applicable simplified methodology and underlying formulae and calculations.</p> <p>The report and the annexed validation describes a total of 31 findings which include:</p> <ul style="list-style-type: none"> <li>• 16 Corrective Action Requests (CARs);</li> <li>• 15 Clarification Requests (CLs);</li> <li>• 0 Forward Action Requests (FARs); and</li> </ul> <p>All findings have been closed satisfactorily. The Programme of Activity will be recommended to the CDM POA Executive Board with a request for registration</p>	
<b>Subject:</b>	<b>Document Distribution</b>
CDM POA Programme of Activity Validation	
<b>Validation Team:</b>	
Shute LI – Lead Assessor/Sectoral Expert (TA13.1) Linda HU – Assessor James SUN – Local Assessor Yi LIAO –Sectoral Expert (TA1.1) David DIAZ –Financial Expert	<input checked="" type="checkbox"/> No Distribution (without permission from the Client or responsible organisational unit)

<b>Technical Review:</b>			<input type="checkbox"/> Limited Distribution
Date: 25-12-2012 Name: Joe Sun			
<b>Authorised Signatory:</b>			<input type="checkbox"/> Unrestricted Distribution
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## Abbreviations

BM	Build Margin
CAR	Corrective Action Request
CCPG	Central China Power Grid
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CL	Clarification Request
CPA	Component project activity
CM	Combined Margin
CME	Coordinating/managing entity
CO <sub>2</sub> e	Carbon Dioxide Equivalent
COP/MOP	The Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
DD	Design Document
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
EB	Executive Board
EF	Emission Factor
EIA	Environment Impact Assessment
ERPA	Emission Reduction Purchase Agreement
ERs	Emission Reductions
FAR	Forward Action Request
FSR	Feasibility Study Report
GHG	Greenhouse Gas(es)
GSC	Global Stakeholders Consultation
I	Interview
IPCC	Intergovernmental Panel on Climate Change
IRR	Internal Return Rate
LFG	Landfill Gas
LoA	Letter of Approval / Letter of Authorization
MoC	Modality of Communications
MoV	Means of Verification
MP	Monitoring Plan
MSW	Municipal Solid Waste
NDRC	National Development and Reform Committee
NGO	Non-Government Organization
ODA	Official Development Assistance
OM	Operating Margin
O&M	Operation and maintenance
PLF	Plant Load Factor
PoA	Programme of Activity
PP	Project Participant
PS	Project Standard
QA/QC	Quality Assurance and Quality Control
SGS	SGS United Kingdom Limited
SV	Site Visit
SWDS	Solid Waste Disposal Site
TA	Technical Area
VAT	Value Added Tax
VVS	Validation and Verification Standard
UNFCCC	United Nations Framework Convention on Climate Change

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## 1. Validation Opinion

SGS United Kingdom Ltd has been contracted by Henan BCCY New Power Industry Co., Ltd. to perform the validation of the Programme of Activity: Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM PoA), Validation and Verification Standard (Version 03) and host country criteria, as well as criteria given to provide for consistent Programme of Activity operations, monitoring and reporting.

The core idea of the Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities (hereafter as "the PoA") is to promote the implementation of profitable LFG capture and usage to power projects in China. Each CPA consists of LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid, with possible partial flaring. By destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from grid dominated by fossil fuel power plant, the Programme of Activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

The specific CPA (CPA-01: Shangrao MSW landfill site LFG recovery to power project) plans to install 4 engines with unit capacity of 0.5 MW and a LFG flaring system. The CPA-01 will combust the LFG to produce electricity and export it to the Central China Power Grid (CCPG), which is dominated by fossil fuel based power plants. The CPA-01 will reduce the greenhouse gas (GHG) emissions by destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from the CCPG.

In our opinion, the Programme of Activity meets all relevant UNFCCC, CDM POA criteria and all relevant host country criteria for China. The Programme of Activity correctly applies methodology AMS-III.G version 7.0 and AMS-I.D version 17.0. It is demonstrated that the Programme of Activity is not a likely baseline scenario. Emission reductions attributable to the Programme of Activity are hence additional to any that would occur in the absence of the Programme of Activity.

The total emission reductions from the specific CPA (CPA-01) are estimated to be 324,265 tCO<sub>2</sub>e over a 10-year crediting period, averaging 32,426 tCO<sub>2</sub>e annually. The emission reduction forecast has been checked and it is deemed likely that the stated amount is achieved given the underlying assumptions do not change.

The Programme of Activity will hence be recommended by SGS for registration with the UNFCCC.

### Signed on Behalf of the Validation Body by Authorized Signatory

Signature:



Name: Siddharth Yadav

Date: 31/12/2012

## 2. Introduction

### 2.1 Objective

Henan BCCY New Power Industry Co., Ltd. has commissioned SGS to perform the validation of the Programme of Activity: Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities with regard to the relevant requirements for Clean Development Mechanism (CDM PoA) Programme of activities. The purpose of a validation is to have an independent third party assess the Programme of Activity design. In particular, the Programme of Activity's baseline, the monitoring plan and the Programme of Activity's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the Programme of Activity design as documented is sound and reasonable and meets the stated requirements and identified criteria. Validation is seen as necessary to provide assurance to stakeholders of the quality of the Programme of Activity and its intended generation of certified emission reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM POA rules and modalities and related decisions by the COP/MOP and the CDM PoA Executive Board.

### 2.2 Scope

The scope of the validation is defined as an independent and objective review of the Programme of Activity design document, the Programme of Activity's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against Kyoto Protocol requirements, UNFCCC rules and associated interpretations. SGS has employed a risk-based approach in the validation, focusing on the identification of significant risks for Programme of Activity implementation and the generation of CERs.

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 Programme of Activity design.

### 2.3 GHG Programme of Activity Description

The core idea of the PoA is to promote the implementation of profitable LFG capture and usage to power projects in China.

### 2.4 Validation Team for this Assessment

A team of competency has been selected to perform the validation of the PoA.

Name	Role
Shute LI	Lead Assessor/Sectoral Expert (TA13.1)
Linda HU	Assessor
James SUN	Local Assessor
Yi LIAO	Sectoral Expert (TA1.1)
David DIAZ	Financial Expert

### 3. Methodology

#### 3.1 Review of CDM POA-DD, Generic CPA-DD and Additional Documentation

The PoA-DD version 1.0 dated 28/12/2011, Generic CPA-DD version 1.0 dated 28/12/2011, and the Specific CPA-DD version 1.0 dated 28/12/2011 was first published for GSC with large scale methodologies on 24/01/2012, then the client voluntarily republished the PoA-DD version 2.0 dated 18/04/2012, Generic CPA-DD version 2.0 dated 18/04/2012, and the Specific CPA-DD version 2.0 dated 18/04/2012 for GSC with small scale methodologies on 27/04/2012.

The validation is performed primarily as a document review of the publicly available PoA-DD version 2.0 dated 18/04/2012 and the subsequent version 3.2 dated 24/12/2012 (final version), Generic CPA-DD version 2.0 dated 18/04/2012 and the subsequent version 3.2 dated 24/12/2012 (final version), and Specific CPA-DD version 2.0 dated 18/04/2012 and the subsequent version 3.2 dated 24/12/2012 (final version). The assessment is performed by trained assessors using a validation protocol attached as Annex 2.

The site visit was performed from 28-29/03/2012 by Lead assessor, sectoral experts (TA1.1 and TA13.1), and local assessor. Since only methodologies for the PoA is changed, it is not necessary to visit the site again. The results are summarized in Annex 1.

Local assessor was also involved to confirm other statements in the DD through review of documents, direct contacts with key stakeholders (including the project developers and Government and local stakeholders).

#### 3.2 Use of the Validation Protocol

The validation protocol used for the assessment is designed in accordance with the Validation and Verification Standard, Version 03.0. It serves the following purposes:

- it organises, details and clarifies the requirements the Programme of Activity is expected to meet; and
- it documents both how a particular requirement has been validated and the result of the validation (reporting).

The validation protocol consists of several tables. The different columns in these tables are described below.

Checklist Question	Ref ID	Means of Verification (MoV)	Comment	Conclusion/ CARs/CLs
The various requirements are linked to checklist questions the Programme of Activity should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	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.	This is either acceptable based on evidence provided (Y), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). Clarification Request (CL) is used when the validation team has identified a need for further clarification.

The completed validation protocol for this Programme of Activity is attached as Annex 2 to this report

#### 3.3 Findings

As an outcome of the validation process, the team can raise different types of findings



**A Clarification Request (CL)** is raised if information is insufficient or not clear enough to determine whether the applicable CDM POA requirements have been met

Where a non-conformance arises the Assessor shall raise a **Corrective Action Request (CAR)**. A CAR is issued, where:

- I. The Programme of Activity participants have made mistakes that will influence the ability of the project activity to achieve real, measurable additional emission reductions;
- II. The CDM POA requirements have not been met;
- III. There is a risk that emission reductions cannot be monitored or calculated.

The validation process may be halted until this information has been made available to the assessors' satisfaction. Failure to address a CL may result in a CAR. Information or clarifications provided as a result of an CL may also lead to a CAR.

**A Forward Action Request (FAR)** is raised during validation to highlight issues related to Programme of Activity implementation that require review during the first verification of the project activity. FARs shall not relate to the CDM POA requirements for registration.

Corrective Action Requests and Clarification Requests are raised in the draft validation protocol and detailed in a separate form (Annex A.3). In this form, the Project Developer is given the opportunity to "close" outstanding CARs and respond to CLs and FARs.

### 3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team. Findings can be raised at this stage and client must address them within agreed timeline.

#### Technical Review Team

Name	Role
Joe SUN	Technical Reviewer
Jumson FU	Sectoral Expert (TA1.1)
Jett ZHANG	Sectoral Expert (TA13.1)

## 4. Validation Findings

### 4.1 Approval

The host Party P.R. China and Annex I Party Germany are the Parties involved in this PoA.

By checking the UNFCCC website below, it is confirmed that both P.R. China and Germany have nominated a DNA.

The P.R. China has ratified the Kyoto Protocol on 30/08/2002 and has appointed a DNA.

[http://unfccc.int/parties\\_and\\_observers/parties/non\\_annex\\_i/items/2833.php](http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php)

The Germany has ratified the Kyoto Protocol on 31/05/2002 and has appointed a DNA.

[http://unfccc.int/parties\\_and\\_observers/parties/annex\\_i/items/2774.php](http://unfccc.int/parties_and_observers/parties/annex_i/items/2774.php)

**CAR#1 for PoA was raised** requesting the PP to provide the Chinese LoA and German LoA.

The Chinese LoA has been provided to the assessment team by the PP. By reviewing the China DNA website (/26/), it is validated that:

- (a) China approved the Kyoto Protocol to the UNFCCC on 30/08/2002 and is a Party to the Kyoto Protocol;
- (b) The PoA and the 1<sup>st</sup> CPA of Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities comply with the permission requirements provided for in the Measures for Operation and Management of CDM project in China and assists China in achieving sustainable development;
- (c) Henan BCCY New Power Industry Co., Ltd is authorized as China's participant to voluntarily participate in and carry out the PoA as the Coordinating/Managing Entity;
- (d) Hennan BCCY New Power Industry Co., Ltd. is permitted to transfer CERs from 1<sup>st</sup> CPA (CPA-01: Shangrao MSW landfill site LFG recovery to power project) of the PoA to First Climate Markets AG which is authorized by the Government of Germany.

The German LoA has been provided by the PP and available on the German JI and CDM Project Data Base (/27/). It is validated that:

- (a) The Germany is the party to the Kyoto Protocol;
- (b) The Germany participates voluntarily in the CDM and the notified project;
- (c) The Germany grants its approval of the project activity "Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities" within the framework of CDM;
- (d) First Climate Markets AG is authorised to participate in this project.

In accordance with Para. 38-49 VVS version 03.0, it is confirmed by the assessment team that both LoAs are unconditional and authentic. CAR#1 was closed.

### 4.2 Participation Requirements

The CME and PP involved in the proposed PoA as correctly listed in the PoA DD (/1/) and the implementer for CPA 01 is also correctly listed in the CPA DD (/3/) requesting registration:

Henan BCCY New Power Industry Co., Ltd. (BCCY) is the CME of the PoA and will communicate with the Executive Board. First Climate Markets AG is a Project Participant to the PoA. Shangrao BCCY New Power Co., Ltd. is the implementer for CPA 01.

Henan BCCY New Power Industry Co., Ltd. has the contractual relationship with SGS for the validation. No PP/CME was changed from the DD submitted for registration compared to the one submitted for GSC. The information provided in the DD regarding the project participants is consistent all through the DD (including Annex 1).

**CAR #2 for PoA was raised** requesting the CME to provide the MoC. MoC dated 13/12/2012 (/28/) has been validated by the assessment team. Related information is consistent with Annex 1 of the PoA version 3.2. By verifying the website of the First Climate Markets AG (/28/), it is confirmed that the primary and alternate signed personal are from the management board. The primary signed personal of the CME in the MoC is same as that in the contract signed with SGS. And the alternate signed personal of the CME in the MoC is the key contact during signing the contract with SGS and is the project manager of the PoA. It is confirmed that MoC template version 02.1 (/52/) is correctly applied and in compliance with the PS (/31/). Thus CAR #2 was closed.

In the section A.4 of the generic CPA and CPA 01, version 2.0 (/3/), the role of Henan BCCY New Power Industry Co., Ltd. ("BCCY") is not consistent. **CL#3 for CPA was raised**. It is confirmed that the role of BCCY is CME by reviewing the revised generic CPA and specified CPA 01, version 3.0. CL#3 was closed.

### **4.3 Programme of Activity Design Document including Programme of Activity Description**

In order to identify the PoA easily and comply with the requirement from host country, PoA title was changed by CME from "LFG recovery to power Programme of Activities in China" in the GSC DD to "Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities" in the PoA DD version 3.1. The changed PoA title enables reader to identify the PoA type and has no impact on the registration. Minor issues were revised in the DD version 3.2. Please refer to the DD revision history in the section 7 of the report.

The PoA and CPA (/1//2//3/) correctly applies the PoA DD form (version 02.0) (/46/) and CPA DD form (version 02.0) (/47/) respectively, and follows the Guidelines for completing the Programme Design Document Form for Small-scale CDM PoA (version 02.0) (/44/) and Guidelines for completing the Component Project Design Document Form for Small-scale CPA (version 01.0) (/45/) without modifying/adding headings or logo, format or font.

LFG capture and usage is a process to produce electricity (or other forms of useful energy) in section A.2 of part I. However, only electricity is mentioned in the subsequent section of the PoA. **CL#3 for PoA was raised** for clarifying the other forms of useful energy. By reviewing the PoA DD version 3.0, it is clearly described: it is general situation that LFG capture and usage is a process capable of making use of the biogas spontaneously generated from the organic fraction of waste in landfills to produce electric power (or other forms of useful energy). But for the proposed PoA, the core idea is to promote the implementation of profitable LFG capture and usage to power projects (without any other form of energy) in China. CL#3 was closed.

According to para 31-32 of PS version 01, **CAR#4 for PoA was raised** requesting PP to clarify how the PoA will reduce GHG emission and contribute to the sustainable development, what the scenario prior to the implementation of the proposed PoA is, and which sectoral scope and type the PoA belong to. After reviewing the revised PoA DD version 3.0, it is confirmed that the requirement in the para 31-32 of PS version 01 has been correctly described. CAR#4 was closed.

Each CPA consists of LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid, with possible partial flaring. By destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from grid dominated by fossil fuel power plant, the Programme of Activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change.

The specific CPA (CPA-01) is a greenfield project and located in Shangrao City, Jiangxi Province, People's Republic of China. The geographical coordinates are longitude 118°01'39"E and latitude 28°27'00"N. The geographical coordinates have been validated using GPS device (/11/) during the onsite physical inspection. Based on the address, map and coordinates provided in the CPA DD, it is easy to identify the unique location of the CPA. The CPA plans to install 4 engines with unit capacity of 0.5 MW and a LFG flaring system (/6//7/). The CPA-01 will combust the LFG to produce electricity and export it to the Central China Power Grid (CCPG), which is dominated by fossil fuel based power plants. It is stated that the LFG Flare system is optional in section A.5 of CPA 01 and subsequent sections while it is described that extra LFG will be destroyed by enclosed flare in section A.3 of CPA 01.

According to para 31-32 of PS version 01 (/31/), how the CPA will contribute to the sustainable development, and which sectoral scope and type the CPA belong to should be described in section A of CPA DD. **CAR#1**

**for CPA was raised.** After reviewing the revised CPA DD, it is confirmed that the requirement in the para 31-32 of PS version 01 has been correctly described in the CPA DD version 3.0. CAR#1 was closed. The types of the CPA are Type III – Other project activities and Type I – Renewable energy projects. The categories of the CPA are sectoral scope 13: Waste handling and disposal and sectoral scope 01: Energy Industries (renewable / non-renewable sources). The CPA will reduce the greenhouse gas (GHG) emissions by destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from the CCPG.

It is stated that the LFG Flare system is optional in section A.5 of CPA 01 and subsequent sections while it is described that extra LFG will be destroyed by enclosed flare in section A.3 of CPA 01. **CAR#2 for CPA was raised** regarding the inconsistency. The CPA will adopt the enclosed flare and consistency has been kept in the CPA version 3.0. All information provided in the CPA DD is in compliance with the FSR. CAR#2 was closed.

For footnote 1 in page 2 of CPA version 02, Figure B.4 Monitoring System did not exist. **CAR#4 for CPA was raised.** The mistake has been corrected as figure 5 of monitoring system in the CPA version 3.0. CAR#4 was closed.

#### 4.4 Criteria for inclusion of Component Project Activities

The PoA DD established clear eligibility criteria for inclusion of each CPA under the PoA and has been validated as below:

EB65 Annex 3 Para 14 (/40/)	Part I of the PoA (/1/)	Part II of the PoA (/1/)	CPA 01 (/3/)
(a) The geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA;	Each CPA will take place in the geographical boundary of China.	The geographical coordinates of the CPA should be within China.	The geographical coordinates of the CPA are 118°01'39"E and 28°27'00"N, which is within China. This is consistent with the geographical boundary set in the PoA.
(b) Conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations (e.g. programme logo);	The CPA is not already registered as a single CDM project or part of another registered CDM PoA or identical with another CPA already included in this PoA by checking the geographical coordinates of the CPA.	<b>CAR#11 for PoA was raised</b> requesting to clarify how a CPA already included in this PoA will be not included in this PoA again. By reviewing the revised PoA DD version 3.0, it is confirmed that a CPA is not identical with another CPA already included in this PoA by checking the geographical coordinates. CAR#11 was closed.  Besides, the CME will also ensure that a CPA is not already registered as a CDM project activity or is included in another registered PoA by checking geographical coordinates.	The CPA is not already registered as a single CDM project or part of another registered CDM PoA or identical with another CPA already included in this PoA. This has been confirmed from the UNFCCC website by checking the geographical coordinates.
(c) The specifications of	The CPA consists in the installation of a LFG	The CPA consists in the installation of a LFG	The CPA consists in the installation of a LFG capture

technology/measure including the level and type of service, performance specifications including compliance with testing/certifications;	capture and usage system, including electricity generation system to utilize the captured LFG and/or partial flaring.	capture and usage system, including electricity generation system to utilize the captured LFG and/or partial flaring. And the Feasibility Study Report (FSR) of the CPA should support such description.	and usage system, including electricity generation system to utilize the captured LFG and extra part flaring. This has been confirmed by reviewing the Feasibility Study Report (FSR, /6/) of the CPA 01.
(d) Conditions to check the start date of the CPA through documentary evidence;	The CPA start date is not before the start of the PoA GSC. The start date of CPA must be indicated as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc.	<b>CL#12 for PoA was raised</b> requesting to clarify which document is used for determining the start date. It has been clearly reported in the PoA DD version 3.0 that the start date of the CPA is defined as the earliest date of real action, such as the main equipment purchase contract, construction contract and construction start report, etc. instead of just list these documents in PoA DD version 2.0. CL#12 was closed.	Yes. Till the start date of 1 <sup>st</sup> GSC of the PoA of 24/01/2012, no real action of the CPA, such as signing equipment purchase contract and construction contract and the commencement of construction, had occurred. This has been confirmed by onsite physical inspection.
(e) Conditions that ensure compliance with applicability and other requirements of single or multiple methodologies applied by CPAs;	These conditions of applicability and other requirements of methodologies AMS-III.G and AMS-I.D have been demonstrated in the PoA DD. Please refer to section 4.5 of the validation report.	The applicability and other requirements of methodologies AMS-III.G and AMS-I.D. shall be demonstrated by the CPA.	The applicability conditions of methodologies have been demonstrated in section D.2 of CPA 01 DD. Please refer to section 4.5 of the validation report.
(f) The conditions that ensure that CPAs meet the requirements pertaining to the demonstration of additionality as specified in Section A above;	The CPA shall meet the relevant requirements of Guidelines on the demonstration of additionality of small-scale project activities - Version 09.0 (/39/) for the demonstration of additionality.	FSR is the basis for investment barrier analysis. Please refer to section 4.8 of the validation report.	Guidelines on the demonstration of additionality of small-scale project activities -Version 09.0 is used for demonstrate the additionality.  Please refer to section 4.8.5 of the validation report.  <b>CL#12 for CPA was raised</b> requesting PP to clarify event of investment decision of the CPA. The FSR (/6/) has been confirmed as the basis of the decision to proceed with the investment in the CPA 01 by reviewing the board meeting minutes dated 06/09/2010 (/10/). The



			period of time between the finalization of the FSR (08/2010) and the investment decision (06/09/2010) is sufficiently short and it is unlikely that the input values would have materially changed. And the FSR was approved by the Development & Reform Commission (DRC) of Jiangxi Province on 12/06/2012 (/7/). CL#12 was closed.
(g) The PoA-specific requirements stipulated by the CME including any conditions related to undertaking local stakeholder consultations and environmental impact analysis;	Local stakeholder consultation and the environmental impact analysis (or equivalent environmental assessment as per national regulations) is required to be completed.	The local stakeholder consultation and environmental impact analysis for the CPA, Minutes of the meeting, attendant list and Environmental Impact Assessment compiled by qualified entity are used for confirmation.	The local stakeholder consultation and environmental impact analysis for the CPA have been conducted and described in the section B and section C of this CPA 01 DD. Questionnaire and stakeholder meeting minutes (/12/), and the EIA (/8/) and its approval (/9/) were validated and confirmed.  Please refer to section 4.11 and section 4.12 of the validation report.
(h) Conditions to provide an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance;	An affirmation that CPA under the PoA does not receive any public funding from Parties included in Annex I, or that in case such public funding is involved, it does not result in diversion of Official Development Assistance (ODA) will be provided.	Such affirmation shall be provided.	By checking the FSR approval (/7/) and statement of no public fund involved issued by the implementer (/13/), no public funding involved in the CPA.
(i) Where applicable, target group (e.g. domestic/commercial/industrial, rural/urban, gridconnected/off-grid) and distribution mechanisms (e.g. direct installation);	<b>CL#5 for PoA was raised</b> requesting to clarify whether electricity is exported to consumer directly or via the grid. In the revised PDD version 3.0, the CPA exports electricity to the grid or to identified consumer via grid which would buy electricity from the grid, for which it is possible	It shall clearly indicate that the electricity generated by the CPA is delivered to the grid or to identified consumer via grid which would have bought electricity from the grid. The electricity purchase agreement or other support evidence shall be available for check.	The electricity generated by the CPA will be delivered to the Central China Power Grid, which has been confirmed by validating the Grid Connection Approval issue by Jiangxi province Power Company dated 13/03/2012 (/14/).

	to determine the CO <sub>2</sub> emission factor per unit of electricity distributed (tCO <sub>2</sub> e/MWh). If this is not possible, no emission reduction can be claimed for the electricity displacement (but only for the methane emission avoidance part). CL#5 was closed.		
(j) Where applicable, the conditions related to sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys;	NA. <b>CL#6 for PoA was raised</b> requesting to clarify why sampling requirements are not applicable. In the revised PoA DD version 3.0, each CPA under the PoA will utilize monitoring rather than sampling for the determination of parameter values for calculating emission reductions. CL#6 was closed.	NA. No sampling is needed.	NA
(k) Where applicable, the conditions that ensure that every CPA in aggregate meets the small-scale or microscale threshold criteria <sup>6</sup> and remains within those thresholds throughout the crediting period of the CPA;	The PoA adopts the combination of AMS-I.D and AMS-III.G., the CPA will meet the thresholds of a maximum output of 15MW for type I and emission reduction not exceeding 60kt CO <sub>2</sub> e per year for type III throughout the crediting period of the CPA.	The total capacity in CPA-DD shall be no more than 15MW and the estimated emission reduction shall not exceed 60kt CO <sub>2</sub> e per year for the component of AMS-III.G.  The technical section of the generator purchase agreement and the Emission Reduction Calculation Spreadsheet will be used for checking.	The total capacity of the CPA is 2.0 MW, less than 15 MW. The estimated maximum estimated emission reduction for type III is 39,911 tCO <sub>2</sub> e per year throughout the crediting period, less than 60kt CO <sub>2</sub> e per year. Thus, it remains within the SSC thresholds throughout the crediting period of the CPA.
(l) Where applicable, the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories.	The CPA will not be a debundled component of a large project activity by checking the latest version of <i>"Guidelines on assessment of debundling for SSC project activities (/42/)"</i> .	It will be demonstrated that the CPA is not a debundled component of a large project activity, according to "Guidelines on Assessment of Debundling for SSC Project Activities".	No project satisfies both conditions (a) and (b) below by checking the UNFCCC website and onsite physical inspection:  (a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and;  (b) The boundary is within 1

			km of the boundary of the proposed small-scale CPA, at the closest point.
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#### 4.5 Applicability of selected methodology to the Programme of Activity

The PoA was published with the large scale methodologies for the 1<sup>st</sup> GSC and then republished with small scale methodologies for the 2<sup>nd</sup> GSC by client. The approved methodologies AMS-III.G version 7.0 and AMS-I.D version 17.0 are applied for the 2<sup>nd</sup> GSC and is not alternated since the 2<sup>nd</sup> GSC. According to “General guidelines for SSC CDM methodologies - ver 18” (/49/), no further assessment of cross effects are needed for the combination of AMS-III.G and AMS-I.D. And the following latest methodologies and tools are cited in the PoA:

- AMS-III.H: Methane recovery in wastewater treatment” – version 16.0
- Methodological tool “Emission from solid waste disposal sites” – Version 06.0.1
- Tool to determine project emissions from flaring gases containing methane – Version 01
- Tool to calculate the emission factor for an electricity system - Version 02.2.1

According to the PoA DD version 2.0, each CPA will utilize LFG to generate electricity and deliver the electricity to the grid. **CAR#7 for PoA was raised** requesting to clarify why “#1 only LFG capture and flaring” in the section B.3 of part I in the PoA DD version 2.0 is the possible combinations of technologies/measures and methodologies. In the revised PoA DD version 3.0, the technology applied in the combined methodologies is LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid, with possible partial flaring. And the only eligible combined methodology is AMS-III.G. and AMS-I.D. CAR#7 was closed.

**CL#9 for CPA was raised** requesting PP to specify the version of related methodologies and tools in section D.1 of the generic CPA. The reference number, title and version of the applied methodologies including tools and standards are consistent with PoA and valid at the time of submission by reviewing the generic CPA DD version 3.0. CL#9 was closed.

The applicability conditions of the applied methodologies AMS-III.G are validated as below:

Applicability conditions for AMS-III.G (/33/)	Part II of the PoA	CPA 01
1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.	The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.	According to the FSR, the CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.
2. Different options to utilise the recovered landfill gas as detailed in paragraph 3 of AMS-III.H “Methane recovery in wastewater treatment” (version 16) (/35/) are eligible for use under this methodology. The relevant procedures in AMS-III.H shall be followed in this regard. The recovered methane from the above measures may also be utilized for the following applications instead of	The recovered methane is utilized for electrical generation directly (i.e. by gas engines included in the project boundary) – option (a). Therefore it is satisfied with the application (a).	According to the FSR, the recovered methane is utilized for electrical generation directly (i.e. by gas engines included in the project boundary). Therefore it is satisfied



<p>flaring or combustion:</p> <p>(a) Thermal or mechanical, electrical energy generation directly;</p> <p>(b) Thermal or mechanical, electrical energy generation after bottling of upgraded biogas, in this case additional guidance provided in Annex I shall be followed; or</p> <p>(c) Thermal or mechanical, electrical energy generation after upgrading and distribution, in this case additional guidance provided in Annex I shall be followed:</p> <p>i. Upgrading and injection of biogas into a natural gas distribution grid with no significant transmission constraints;</p> <p>ii. Upgrading and transportation of biogas via a dedicated piped network to a group of end users; or</p> <p>iii. Upgrading and transportation of biogas (e.g. by trucks) to distribution points for end users.</p> <p>(d) Hydrogen production.</p> <p>(e) Use as fuel in transportation applications after upgrading.</p>		with the application (a).
<p>3. According to paragraph 3 of AMS-III.H. "If the recovered biogas methane is used for project activities covered under paragraph 2 (a), that component of the project activity shall use a corresponding category under type I.</p>	<p>The CPA adopts methodology AMS-I.D. for the power generation component. Therefore this condition is fulfilled.</p>	<p>According to the FSR, the power generation component included in the CPA. Thus the CPA adopts methodology AMS-I.D. Therefore this condition is fulfilled.</p>
<p>4. Measures are limited to those that result in aggregate emission reductions of less than or equal to 60 kt CO<sub>2</sub> equivalent annually from all type III components of the project activity.</p>	<p>The CPA results in aggregate emission reduction of less than 60 kt CO<sub>2</sub> equivalent annually from all type III components. Therefore this condition is fulfilled.</p>	<p>By reviewing the ERs calculation spreadsheet (/4/), the estimated maximum emission reduction for type III is 39,911 tCO<sub>2</sub>e per year throughout the crediting period, less than 60kt CO<sub>2</sub>e per year. Therefore this condition is fulfilled.</p>

The applicability conditions of the applied methodologies AMS-I.D are justified as below:

Applicability conditions for AMS-I.D (/34/)	Part II of the PoA	CPA 01
<p>1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>(a) supplying electricity to a national or a regional grid;</p> <p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling</p>	<p>The CPA generates electricity from a renewable biomass (biogas) and supplies it to corresponding regional grid. Therefore this condition is fulfilled.</p>	<p>According to the FSR, the CPA generates electricity from a renewable biomass (biogas) and supplies it to CCPG. Therefore this condition is fulfilled.</p>
<p>2. Illustration of situations under the methodology AMS-I.D as follows:</p> <ul style="list-style-type: none"> <li>Project supplies electricity to a national/regional grid;</li> <li>Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)</li> </ul>	<p>The CPA plans to supply electricity to corresponding regional grid. Therefore this condition is fulfilled.</p>	<p>According to the FSR, the CPA plans to supply electricity to CCPG. Therefore this condition is fulfilled.</p>
<p>3. This methodology is applicable to project activities that</p> <p>(a) install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) involve a capacity addition<sup>1</sup>; (c) involve a retrofit of (an) existing plant(s); or (d) involve a</p>	<p>The CPA installs a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the CPA</p>	<p>According to the FSR, the CPA installs a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of</p>

replacement of (an) existing plant(s).	(greenfield plant). Therefore this condition of (a) is fulfilled.	the CPA (greenfield plant). Therefore this condition of (a) is fulfilled.
4. Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: <ul style="list-style-type: none"> <li>The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</li> <li>The project activity is implemented in an existing reservoir (A reservoir is to be considered as an "existing reservoir" if it has been in operation for at least three years before the implementation of the project activity.), where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>;</li> <li>The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.</li> </ul>	Not applicable (the CPA is not a hydro power plant).	Not applicable (the CPA is not a hydro power plant).
5. If the new unit has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.	Not applicable (the CPA does not use non-renewable components nor co-fires fossil fuels).	Not applicable (the CPA does not use non-renewable components nor co-fires fossil fuels).
6. Combined heat and power (co-generation) systems are not eligible under this category	The CPA does not co-generate heat and power (only power). Therefore this condition is fulfilled.	According to the FSR, the CPA only generates power from LFG. Therefore this condition is fulfilled.
7. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct from the existing units.	Not applicable (the CPA does not involve addition of renewable energy generation units at an existing renewable power generation facility).	Not applicable (the CPA does not involve addition of renewable energy generation units at an existing renewable power generation facility).
8. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	Not applicable (the CPA project is not a retrofit or replacement)	Not applicable (the CPA project is not a retrofit or replacement)

Besides, the applicability conditions of applied tools were also validated as below:

Emission from solid waste disposal sites" – Version 06.0.1

Applicability conditions (/36/)	PoA and CPA
<b>Application A:</b> The CDM project activity mitigates methane emissions from a specific existing SWDS. Methane emissions are mitigated by capturing and flaring or combusting the methane (e.g. ACM0001). The methane is generated from waste disposed in the past, including prior to the start of the CDM project activity. In these cases, the tool is only applied for an ex-ante estimation of emissions in the CDM-PDD. The emissions will then be monitored during the crediting period using the applicable approaches in the relevant methodologies (e.g. measuring the amount of methane captured from the SWDS);	This is fulfilled. Each CPA mitigates methane emissions from a specific existing SWDS. For CPA 01, the project mitigates the methane emissions from Shangrao Landfill by LFG to power.
<b>Application B:</b> The CDM project activity avoids or involves the disposal of waste at a SWDS. An example of this application of the tool is AM0025, in which MSW is treated with an alternative option, such as composting or anaerobic digestion, and is then prevented from being disposed of in a SWDS. The methane is generated from waste disposed or avoided from disposal during the crediting period. In these	NA

cases, the tool can be applied for both ex-ante and ex-post estimation of emissions.	
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Tool to determine project emissions from flaring gases containing methane – Version 01

Applicability conditions (/37/)	PoA and CPA
1. The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen;	NA
2. The residual gas stream to be flared shall be obtained from decomposition of organic material (through landfills, bio-digesters or anaerobic lagoons, among others) or from gases vented in coal mines (coal mine methane and coal bed methane).	This is fulfilled. For each CPA, the excess LFG to be flared are generated from MSW landfills.

Tool to calculate the emission factor for an electricity system - Version 02.2.1

Applicability conditions (/38/)	PoA and CPA
1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	This is fulfilled. The electricity generated by the CPA will be supplied to grid that results in savings of electricity that would have been provided by the grid. For CPA 01, the electricity generated will be supplied to CCPG.
2. In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	The electricity generated by each CPA will be supplied to grid within China instead of Annex I country.

#### 4.6 Operational, management and verification plan

**CAR#8 for PoA was raised** requesting to clarify how a management system is developed as per para 17 of annex 3 EB65, such as definition of roles and responsibilities of personnel involved, records and documentation control process for each CPA under the PoA, measures for continuous improvements of PoA management system. The management system has been clearly described in the revised PoA DD version 3.0. CAR#8 was closed. The CME has established the PoA management system (/15/) to manage the PoA as following:

(a) Roles and responsibilities of personnel

The organization structure of the management system and the responsibilities of each role are clearly defined in the PoA DD and consistent with those in the PoA management system (/15/).

(b) Procedure for training and capacity development

CME staff who is responsible for the PoA will receive training to develop its competence in managing the PoA. The CME will arrange regular training for the CPA owners.

(c) Procedure for technical review of inclusion of CPAs

A checklist of eligibility criteria will be formulated after the registration of PoA and updated from time to time to ensure that each CPA meets all requirements for inclusion in the registered PoA.

(d) Procedure to avoid double counting

Geographical location and coordinates of each CPA will be provided in the CPA DD and checked for avoiding double counting. By checking the UNFCCC website, the CPA 01 has not already been added into the PoA or any other PoA, nor it is an already registered CDM project activity.

(e) Procedure for record and documentation control process

Each CPA will be managed by dedicated staff, with an internal organization that will ensure smooth operation of the LFG capture and usage plant, from the technical and administrative point of view.

The CME will ensure that a homogenous reporting practice is adopted in all CPAs and will collect centrally all the data needed for the emission reductions calculation.

(f) Measure for continual improvements of the PoA management

Every year, the PoA management will summarize the work of the PoA and share the experience in the CDM department and update the management system, if possible. The external expert of CDM will be consulted regularly for the management of PoA.

(g) Provisions to ensure CPAs awareness of inclusion in the PoA

**CL#6 for CPA was raised** requesting PP to clarify how the implementer is aware that the CPA will be included in the PoA. Participation of the CPAs into the PoA will be regulated by a specific statement by the CPA owner, which agrees the CPA to be included in the PoA and agrees Henan BCCY New Power Industry Co., Ltd. as the CME. For CPA 01, the implementer, Shangrao BCCY New Power Co., Ltd., has issued the statement (/16/) and agree to be included in the PoA and assign the Henan BCCY New Power Industry Co., Ltd. as the CME. By reviewing the statement of awareness of inclusion in PoA issued by the implementer dated 12/06/2012 (/16/), it is confirmed that the implementer voluntarily participates in the PoA and appoints BCCY as CME. CL#6 was closed.

#### **4.7 Programme of Activity Boundary**

Through document review of the DD and FSR of CPA 01, it has been validated that the identified project boundary and the selected sources and gases is justified.

According to the methodologies applied in the PoA, the boundary of each CPA includes the site where the LFG is captured and, as applicable:

- Sites where the LFG is flared or used (e.g. flare, power plant);
- Captive power plant(s) or power generation sources connected to the grid, which are supplying electricity to each CPA;
- Captive power plant(s) or power generation sources connected to the grid, which are supplying electricity in the baseline that is displaced by electricity generated by each CPA.

All emission sources and gases related to the baseline scenario, project scenario and leakage are clearly identified and described in a complete manner in the DD. CO<sub>2</sub> from the grid and CH<sub>4</sub> from the landfill site are the main emission sources and included in the baseline emission. CO<sub>2</sub> from onsite electricity consumption and CH<sub>4</sub> from LFG flaring are the main emission sources and included in project emission. No leakage is considered for the CPA 01. All above information has been validated to be in compliance with the methodologies applied.

For the CPA 01, the boundary of CPA includes the CPA plant site, the landfill site, where the LFG is captured and used for electricity generation, the LFG collection system, the LFG pre-treatment system, the gas-generator sets, flaring system for the extra gas, and also includes all the power sources connected physically to the Central China Power Grid (CCPG) and North West Power Grid and North China Power Grid, which are connected to CCPG.

According to annex 13 and annex 17 of EB66, **CAR#13 for PoA and CAR#10 for CPA were raised** requesting to clarify whether the CPA is located within the geographical boundary of the proposed PoA, and indicate in the diagram the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored. The CPA 01 is located in Shangrao city within China, thus the CPA boundary is within the geographical boundary of PoA. The emissions sources of CH<sub>4</sub> and CO<sub>2</sub> have been added in the CPA DD version 3.0 and PoA DD version 3.0. The data and parameters to be monitored and corresponding monitoring meters are included in the CPA DD version 3.0 and PoA DD version 3.0. CAR#13 for PoA and CAR#10 for CPA were closed.

All greenhouse gas emissions occurring within the CPA boundary as a result of the implementation of the CPA were included by the methodology. There are no emissions which are expected to contribute more than 1% of the overall expected average annual emissions reductions which are not addressed by the applied methodologies.

#### **4.8 Baseline Selection and Additionality**

##### **4.8.1 Additionality of Programme of Activity**

According to EB 55 Annex 38 Para. 6 (e) (/43/), the additionality in the absence of the CDM PoA has been demonstrated as:

*(i) the proposed voluntary measure would not be implemented*

This is demonstrated by means of investment barrier at CPA level, and the project IRR of the CPA without CER revenue should be lower than the applicable sectoral benchmark. For CPA 01, this has been validated in the section 4.8.5 of this report.

*(ii) the mandatory policy/regulation would be systematically not enforced in China*

There are mandatory regulations to require recovery and utilization of LFG, but they are not fully enforced. This has been validated in the section 4.8.4 of this report.

*(iii) that the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation*

Currently, there are less than 0.51% landfill sites in China flaring and utilizing LFG, which has been validated in the section 4.8.4 of this report. The PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation of flaring or utilization of LFG.

#### **4.8.2 Additionality of Typical CPA**

According to Para. 154 of PS version 02.1 (/31/), a full additionality assessment is not required in the context of CPA. The confirmation of additionality for CPA is conducted by means of the eligibility criteria and validated in the section 4.4 of the validation report.

#### **4.8.3 Start Date of Programme of Activity**

According to the section D.1 of part I PoA version 2.0, the start date of PoA is determined as GSC date of the PoA while 28/12/2011 is not the GSC date. **CAR#15 for PoA was raised.** By reviewing the revised PoA DD version 3.0, the correct start date of the PoA is 24/01/2012, which is the first GSC date of PoA. It is in compliance with the definition of start date in the Glossary of CDM Term version 06 (/48/). CAR#15 was closed. It also confirmed that the definition for the start date of the PoA is in accordance with the Para. 159 (b) of PS version 02.1 (/31/).

**CL#5 for CPA was raised** requesting PP to clarify how the start date of the CPA01 is determined in the CPA DD version 2.0. PP clarified that the start date of the CPA01 is indicated as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc. The CPA 01 has not started yet, and the start date of the CPA 01 is expected as 01/09/2012. CL#5 was closed. By verifying the CPA 01 DD version 3.2, it is confirmed that the start date of the CPA 01 has been revised as 01/2013 and is after the start date of the PoA, which is in accordance with the Para. 193 of PS version 02.1 (/31/).

Prior consideration of CDM is not required to be assessed as per para 194 of VVS version 02 while it is required in para 194 of VVS version 03. The assessment team confirmed that the start date of the PoA is the first GSC date of PoA and the start date of the CPA 01 has not started and is expected as 01/2013 which is later than the first GSC date of PoA. Besides, the signed date of ERPA is 08/11/2011 (/29/) which is earlier than the first GSC date of PoA. Thus, the CDM was seriously considered in the decision to implement the PoA.

#### **4.8.4 Identification of alternatives**

According to the Para. 115 VVS version 03.0, the baseline scenario is determined in the methodologies applied in the PoA.

##### **According to AMS-III.G:**

*“The baseline scenario is the situation where, in the absence of the project activity, biomass and other organic matter are left to decay within the project boundary and methane is emitted to the atmosphere. Baseline emissions shall exclude methane emissions that would have to be removed to comply with national or local safety requirement or legal regulations”.*

**CL#11 for CPA and CL#10 for PoA was raised** requesting PP to clarify how the 0.45% of landfill sites (excluding the landfill sites related with CDM projects) flaring and utilizing LFG in China in PoA DD version 2.0 is determined. By validating the “China Development Report on Urban Domestic Refuse Disposal Industry 2010 (/53/),” the CDM pipeline issued by 01/11/2011 (/54/), and published information from website



(/55//56/), it is confirmed that the correct one is 0.51% instead of 0.45%. Correction has been done in the PoA DD version 3.0. CL#10 and CL#11 were closed.

It is confirmed that uncontrolled emission of methane to the atmosphere without any recovery is the most plausible baseline scenario by the onsite physical inspection of CPA 01 and reviewing *Promoting Methane Recovery and Utilization from Mixed Municipal Refuse in China, Terminal Evaluation Report dated 12/2005 (/57/)*, *Circular on the Outcome of Nationwide Inspection on Hazard-free Treatment of Domestic Waste Landfill Sites dated 02/2007 (/58/)*, *China Development Report on Urban Domestic Refuse Disposal Industry 2010 (/53/)*, the CDM pipeline (/54/), and published available on website (/55//56/).

#### **According to AMS-I.D:**

*“The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid”.*

The CPA is a new grid-connected renewable power unit, therefore the baseline is the electricity would be provided by the grid.

#### **4.8.5 Investment analysis**

According to eligibility criteria, investment barrier in Guidelines on the demonstration of additionality of small-scale project activities -Version 09.0 (/39/) is used for demonstrate the additionality of the CPA01. Assessment and demonstration of additionality is carried out through the following steps:

##### **1) Benchmark determination**

The benchmark analysis is applied to demonstrate the investment barrier. The benchmark of 8% is derived from the *Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects* (Guodianfa [2002] No.623) (/59/), issued by the State Power Corporation of China on 10/09/2002. This benchmark is widely applied in financial assessments of electricity generation projects in China. The CME also has developed other registered small-scale LFG CDM projects (Project 3937, 5238 & 5652) using the same benchmark. The proposed CPA01 is an electricity generation project and the project IRR (post-tax) of total investment is identified to be the financial factor which has been calculated and compared with the benchmark. Based on the local and sectoral knowledge, the benchmark IRR of 8% is validated to be suitable for the CPA.

##### **2) Project IRR (post-tax) calculation and sensitivity analysis**

In accordance with Para. 122(a) VVS version 03.0, the FSR has been confirmed as the basis of the decision to proceed with the investment in the CPA. The period of time between the finalization of the FSR (08/2010) (/6/) and the investment decision (06/09/2010) (/10/) is sufficiently short and it is unlikely that the input values would have materially changed. **CAR#13 for CPA was raised** requesting PP to provide the FSR approval of CPA 01. The FSR was approved by the Development & Reform Commission (DRC) of Jiangxi Province on 12/06/2012 (/7/) and provided. CAR#13 was closed.

By verifying the IRR calculation spreadsheet (/5/), it is confirmed that calculation and the input values are correct. The input values applied in the CPA were crosschecked with the registered small-scale LFG CDM projects which applied AMS-III.G. and AMS-I.D. in China.

Table 1 The registered Small-scale LFG CDM projects which applied AMS-III.G. and AMS-I.D. in China

UN Ref.	Project Name	Installed Capacity (MW)	Total static investment (Million RMB)	PLF	Tariff (With VAT) (RMB/kWh)	LFG Capture Efficiency	Annual O&M Costs/KW (RMB/KW)	Investment /KW (RMB/KW)
2892	Xiangtan Shuangma Landfill Gas Recovery and Utilization Project in Hunan Province	0.957	18.6476	91.3%	0.6525	60%	1,387	19,485
3937	Nanyang Landfill Site LFG Recovery to Electricity Project	0.9	22.59	74.2%	0.58	40%	1,779	25,100
4503	Landfill Gas Recovery and	1.0	13.05	57.1%	0.589	70%	643	13,050

	Utilization Project in Linyi Municipal Waste Sanitary Landfill							
4610	Baoding Landfill Gas Recovery and Utilization Project in Hebei Province	1.5	22.3	57.1%	0.66	70%	726	14,867
5238	Luohe MSW Landfill Site LFG Recovery to Power Project	2	28	74.20 %	0.58	60%	1,175	14,000
5310	Shandong Laiwu Landfill Gas Recovery and Power Generation Project	1.668	27.27	90.00 %	0.594	65%	1,865	16,349
5316	Jiyuan MSW Landfill Site LFG Recovery to Power Project	1.5	18.28	74.20 %	0.58	65%	1,250	12,187
5466	Baoji Lingyuan Landfill Gas Recovery and Utilization Project	1.5	15.2001	82.19 %	0.532	50%	1,258	10,133
5652	Jiaozuo Zhouliu MSW Landfill site LFG Recovery to power project	2.5	23.68	82.20 %	0.586	70%	925	9,472
Average		-	21.002	75.84 %	0.595	61%	1,223	14,960
<b>The proposed project</b>		<b>2</b>	<b>13.8</b>	<b>82.19 %</b>	<b>0.622</b>	<b>65%</b>	<b>1,373</b>	<b>6,900</b>

#### 1) Total static investment

The total static investment consists of the cost for LFG collection system, the LFG pre-treatment system, the gas-generator sets, flaring system, and the plant etc. The total static investment of the project is 13.8 million RMB which is consistent with the data in the FSR. The investment per KW of the project is 6,900RMB/KW, and it is crosschecked with the projects in Table 1. It is found that the investment per KW of the project is lower than those of projects in Table 1. Thus, the total static investment of the project is conservative than these registered projects.

In accordance with the Paragraph 20-21 of EB62 Annex 5-Guidelines on the assessment of investment analysis (version 05) (/41/), the sensitivity analysis was performed with a variation of  $\pm 10\%$  of the total static investment. With a decrease in the total static investment by 10%, the Project IRR (after-tax) is 4.11% which is still less than the benchmark of 8.0%. When the total static investment decreased by 56.69%, the Project IRR (after-tax) will reach the benchmark of 8.0%. By checking the Jiangxi Statistical Yearbook 2010 (/60/), it is confirmed that the fixed asset investment is increasing in recent years. It is not expected that the total static investment will be decreased by 56.69%.

#### (2) O&M cost

The annual O&M cost of the project is 2.75 million RMB which is consistent with the FSR. The annual O&M cost per KW of the project is 1,373RMB/KW, and it is crosschecked with the projects in Table 1. It is found that the annual O&M cost per KW of the project is similar with the average of projects in Table 1.

The O&M cost mainly includes the Employee payroll and welfare, Waste and landfill site use charge, Maintenance and repair cost, and Administration cost which is composed of communication fee, office management fee, Travel & Accommodation fee, and Business entertainment expense. The O&M cost varies from project to project due to different location and disposal capacity.

The O&M cost of the CPA 01 is crosschecked with the project 5652 which has a lower annual O&M cost per KW and was prepared by the same third party. By crosschecking the breakdown of the O&M cost of the 2 projects, it is found that the waste and landfill site use charge of the CPA 01 is higher than the charge of the project 5652. By crosschecking with *Cooperation contract dated 15/07/2010* (/17/), it is confirmed that the waste and landfill site use charge has been determined in the contract and consistent with the FSR. Thus, the waste and landfill site use charge of the CPA 01 in the CPA DD is suitable. It is also found that the maintenance expense for LFG extraction system is higher than that of the project 5652. By comparing the

FSRs (/6//61/) of both projects, it is found that the landfill disposal capacity of the CPA 01 is higher than that of project 5652, which leads to more LFG extraction wells and pipelines. Thus, the maintenance expense for LFG extraction system is higher. Besides, it is also confirmed that if the waste and landfill site use charge and maintenance expense for LFG extraction system is the same as the project 5652, the project IRR (after-tax) is still below the benchmark. Thus, the annual O&M cost of the project is acceptable.

In accordance with the Paragraph 20-21 of EB62 Annex 5-Guidelines on the assessment of investment analysis (version 05) (/41/), the sensitivity analysis was performed with a variation of  $\pm 10\%$  of the O&M cost. With a decrease in the annual O&M cost by 10%, the Project IRR (after-tax) is 4.94% which is still less than the benchmark of 8.0%. When the annual O&M cost decreased by 32.58%, the Project IRR (after-tax) will reach the benchmark of 8.0%. By checking the Jiangxi Statistical Yearbook 2010 (/60/), it is confirmed that the Consumer Price Index (CPI) is increasing in recent years. It is not expected that the O&M cost will be decreased by 32.58%.

### (3) Annual average net electricity supplied to the grid

The annual average net electricity supplied to the grid by the project is 6,979.98MWh which is consistent with the FSR. The annual average net electricity supplied to the grid is affected by the amount and characteristics of the MSW disposed in the landfill site and the meteorological condition of the project site. The amount of MSW disposed in the FSR was estimated by Zhengzhou Design and Research Institute of Coal Industry Co., Ltd, which is a qualified third party (/18/).

In accordance with the Paragraphs 20-21 of EB62 Annex 5-Guidelines on the assessment of investment analysis (version 05) (/41/), the sensitivity analysis was performed with a variation of  $\pm 10\%$  of the annual average net electricity supplied to the grid. With an increase in net electricity supplied to the grid by 10%, the Project IRR (after-tax) of the project is 5.43%, which is still less than the benchmark of 8.0%. When the net electricity supplied to the grid increases by 25.14%, the Project IRR (after-tax) of the project can reach benchmark of 8.0%. The characteristics and amount of the disposed MSW in the FSR were provided by the landfill owner. The amount of disposed MSW in the FSR was crosschecked with the actual amount of disposed MSW in the Shangrao landfill site in 2009-2011 (/20/) issued by the landfill owner. The actual characteristics of MSW were crosschecked with the actual average characteristics of MSW in the Shangrao landfill site issued by the Shangrao landfill owner in 2010 (/21/). It is confirmed that the amount and characters of MSW estimated in the FSR are reasonable. Besides, the meteorological condition of the project site is fixed. Thus, it is impossible for the net electricity supplied to the grid to increase by 25.14%.

### (4) Electricity tariff

The benchmark tariff for coal-fired grid-connected power plant in Jiangxi Province is 0.372RMB/kWh (with VAT) (/63/), and the renewable electricity tariff subsidy is 0.25RMB/kWh (with VAT) (/62/). Thus, the benchmark electricity tariff for renewable project is  $0.372 + 0.25 = 0.622$  RMB/kWh, which is consistent with the electricity tariff (with VAT) of the project in the FSR. Therefore, the electricity tariff of the project assumed in the FSR is reasonable. Besides, the electricity tariff of the project is also crosschecked with the projects in the Table 1. It is found that the electricity tariff of the project is higher than the average tariff of the registered projects in the Table 1.

In accordance with the Paragraph 20-21 of EB62 Annex 5-Guidelines on the assessment of investment analysis (version 05) (/41/), the sensitivity analysis was performed with a variation of  $\pm 10\%$  of the electricity tariff. With an increase in the electricity tariff by 10%, the Project IRR (after-tax) of the project is 5.43%, which is still less than the benchmark of 8.0%. When the electricity tariff increases by 25.14%, the Project IRR (after-tax) of the project can reach benchmark of 8.0%. However, the highest tariff for registered projects in the Table 1 is only 0.66 RMB/kWh (with VAT). Thus, it is impossible for the electricity tariff to increase by 25.14%.

### (5) Plant Load Factor (PLF)

According to EB48 Annex 11-Guidelines for the reporting and validation of plant load factors (version 01) (/50/), the plant load factor shall be defined ex-ante in the CDM-PDD. According to the FSR prepared by Zhengzhou Design and Research Institute of Coal Industry Co., Ltd, the annual operating hours of the project is 7,200h, thus the PLF is calculated as  $7,200 / 8,760 = 82.19\%$ . It is crosschecked with the PLF of the projects in Table 1, and it is found that the PLF of this project is higher than the average PLF of projects in Table 1. Thus, the PLF applied in the project is reasonable.



(6) LFG capture efficiency ( $p_{\text{captured}}$ )

The LFG capture efficiency of the CPA is estimated as 65% which is consistent with the FSR. It is crosschecked with the LFG capture efficiency of the projects in Table 1, and the LFG capture efficiency of the project is higher than the average LFG capture efficiency for projects in the Table 1. Thus, the LFG capture efficiency applied in the project is reasonable.

(7) Tax

Income tax (25%), value added tax (17%), additional urban construction tax (7%), and education surcharges (3%) are consistent with the FSR. And it is also crosschecked with the registered project in the Table 1, *Enterprise Income Tax Law of the People's Republic of China* (/64/), *Decision of the State Council on Amending the Interim Provisions on the Collection of Educational Surcharges* (/65/), and *Interim regulations on the city maintenance construction tax of the People's Republic of China* (/66/). Furthermore, since no loan is applied for this project (100% own equity financed), no interest payable needs to be considered when calculating the income tax. Thus, it is confirmed that the tax rate applied in the project is reasonable.

(8) Lifetime & Residual value rate

Lifetime (19 years) and Residual value rate (5%) are consistent with the FSR. The lifetime is crosschecked with the *Cooperation contract dated 15/07/2010* (/17/) signed between the CPA 01 implementer and landfill owner, which indicated the operation period is 19 years. The Residual value rate is crosschecked with *Interim Regulations of the People's Republic of China on Income Tax of the Enterprise and other relevant provisions* (/67/). Thus, it is confirmed that the lifetime and residual value rate applied in the project is reasonable.

#### 4.8.6 Barrier analysis

NA

#### 4.8.7 Common practice analysis

NA

### 4.9 Application of Baseline Methodology and Calculation of Emission Factors

AMS-III.G. version 7.0 and AMS-I.D. version 17.0 has been correctly applied to determine the baseline emission, project emissions, leakage. Corresponding ERs calculation spreadsheet was provided. It is confirmed that all formulas used in the IRR calculation spreadsheet are readable and all relevant cells are viewable and unprotected. All parameters and equations applied in the project are validated comparing with the requirements in the methodologies and related tools.

#### 4.9.1 Baseline emissions ( $BE_y$ )

The ex-ante baseline emissions are calculated as:

$$BE_y = BE_{y,1} + BE_{y,2}$$

$$= p_{\text{captured}} \cdot BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4} + EG_{BL,y} \cdot EF_{CO2,grid,y}$$

(1) According to AMS-III.G. version 7.0, the baseline emissions are calculated as following:

$$BE_{y,1} = BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4}$$

According to the FSR, it is estimated that not all potential methane emissions of a solid waste disposal site ( $BE_{CH4,SWDS,y}$ ) can be captured from the landfill, but just a portion can be captured and utilised by the project. Therefore:

$$BE_{y,1} = p_{\text{captured}} * BE_{CH4,SWDS,y} - MD_{reg,y} * GWP_{CH4}$$

In the absence of the project, the amount of methane that would be generated from the landfill site ( $BE_{CH4,SWDS,y}$ ) is ex-ante determined using the tool *"Emissions from solid waste disposal sites -version 06.0.1"* (/36/). Methane emissions will be mitigated by capturing and combusting the LFG emitted from an

existing landfill. Therefore, “Application A: The CDM project activity mitigates methane emissions from a specific existing SWDS” is applied, and yearly model is chosen because waste disposal are available on a yearly basis.

The amount of methane generated from disposal of waste at the SWDS is calculated for year y using the equation:

$$BE_{CH_4,SWDS,y} = \phi_y (1 - f_y) \cdot GWP_{CH_4} \cdot (1 - OX) \cdot \frac{16}{12} \cdot F \cdot DOC_{f,y} \cdot MCF_y \cdot \sum_{x=1}^y \sum_j W_{j,x} \cdot DOC_j \cdot e^{-kj(y-x)} (1 - e^{-kj})$$

Main input parameters used in the tool were validated by onsite validation and documents review:

Parameter	Application A	Value adopted for Application A				
$\phi_y$	Default value	<p><b>CL#14 for CPA was raised</b> requesting PP to clarify how 0.75 of <math>\phi_y</math> and 1.0 of <math>MCF_y</math> in section D.6.1 of CPA-01 is determined for <math>BE_{CH_4,SWDS,y}</math> calculation. By reviewing the meteorological data issued by meteorological bureau of Shangrao City dated 23/11/2011, it is confirmed that the climate where the CPA located is wet condition. Thus, the default value of 0.75 is correctly chosen for the baseline emissions. During the onsite physical inspection and interviewing with the landfill owner, it is confirmed that the landfill site is well managed with cover material and mechanical compacting. Thus, the default value of 1.0 is correctly chosen. CL#14 was closed.</p> <p>Based on the application A, for the baseline emissions, the default value is as follow:</p> <table><tr><td>Humid/wet conditions</td><td>Dry conditions</td></tr><tr><td>0.75</td><td>0.75</td></tr></table> <p>For the CPA 01, it is humid/wet condition by reviewing the meteorological data issued by Meteorological Bureau of Shangrao City in Jiangxi province (/22/).</p>	Humid/wet conditions	Dry conditions	0.75	0.75
Humid/wet conditions	Dry conditions					
0.75	0.75					
OX	Default value	0.1				
F	Default value	0.5				
$DOC_{f,y}$	Default value	0.5				
$MCF_y$	Default value (based on SWDS type)	<p>Use the following values for MCF:</p> <ul style="list-style-type: none"><li>1.0 for <b>anaerobic managed solid waste disposal sites</b>. These must have controlled placement of waste (i.e. waste directed to specific deposition areas, a degree of control of scavenging and a degree of control of fires) and will include at least one of the following: (i) cover material; (ii) mechanical compacting; or (iii) leveling of the waste;</li><li>0.5 for <b>semi-aerobic managed solid waste disposal sites</b>. These must have controlled placement of waste and will include all of the following structures for introducing air to waste layers: (i) permeable cover material; (ii) leachate drainage system; (iii) regulating pondage; and (iv) gas ventilation system;</li><li>0.8 for <b>unmanaged solid waste disposal sites – deep</b>. This comprises all SWDS not meeting the criteria of managed SWDS and which have depths of greater than or equal to 5 meters;</li><li>0.4 for <b>unmanaged-shallow solid waste disposal sites</b>. <b>This comprises all SWDS</b>. This comprises all SWDS not meeting the criteria of managed SWDS and which have depths of less than 5 metres. This includes stockpiles of solid waste that are considered SWDS (according to the definition given for a SWDS).</li></ul> <p>For the CPA 01, the default value of 1.0 is adopted. It has been confirmed that the landfill site is an anaerobic managed solid waste disposal site with controlled placement of waste and including cover material by onsite physical inspection by the assessment team.</p>				

k <sub>j</sub>	Default value (based on waste type)	Waste type j		Boreal and temperate (MAT ≤ 20 °C)		Tropical (MAT>20 °C)	
				Dry (MAP/PET < 1)	Wet (MAP/PET > 1)	Dry (MAP< 1000mm )	Wet (MAP> 1000m m)
		Slow degrading	Pulp, paper and cardboard (other than sludge), textiles	0.04	0.06	0.045	0.07
			Wood, wood products and straw	0.02	0.03	0.025	0.035
		Moderately degrading	Other (non food) organic putrescible garden and park waste	0.05	0.10	0.065	0.17
		Rapidly degrading	Food, food waste, sewage sludge, beverages and tobacco	0.06	0.185	0.085	0.40
By reviewing the meteorological data issued by Meteorological Bureau of Shangrao City in Jiangxi province (/22/), it is confirmed that the meteorological condition of Shangrao City is Boreal and temperate (MAT ≤ 20 °C) Wet (MAP/PET > 1).							
W <sub>j,x</sub>	Estimated once	This data is only used for ERs estimation ex-ante and have no relation with the ERs ex post. It is estimated at CPA level and will not be monitored.  For CPA 01, the estimated ERs during the crediting period is calculated based on the amount of actual disposed MSW in the Shangrao Landfill site in 2009-2011 (/20/) which is provided from landfill owner and 4% of increased rate for subsequent years which is an average value within the lifetime of the landfill site in FSR (/6/). The actual disposed MSW in the Shangrao Landfill site in 2009-2011 applied in the CPA 01 is more accurate and conservative than the estimated data in the FSR for determining the project scale.					
DOC <sub>j</sub>	Default value (based on waste type)	Waste type j			DOC <sub>j</sub> (% wet waste)		
		W <sub>1</sub> -Wood and wood products			43		
		W <sub>2</sub> -Pulp, paper and cardboard (other than sludge)			40		
		W <sub>3</sub> -Food, food waste, beverages and tobacco (other than sludge)			15		
		W <sub>4</sub> -Textiles			24		
		W <sub>5</sub> -Garden, yard and park waste			20		
		W <sub>6</sub> -Glass, plastic, metal, other inert waste			0		
		They are default value from the tool “Emissions from solid waste disposal sites -version 06.0.1”.					
f <sub>y</sub>	Estimated once	For application A: Estimated once for the crediting period (f <sub>y</sub> ). f <sub>y</sub> in the tool “Emissions from solid waste disposal sites -version 06.0.1” shall be assigned a value 0 because the amount for LFG that would have been captured and destroyed is already considered in MD <sub>reg,y</sub> , that is BE <sub>CH4,y</sub> .					

(2) According to AMS-I.D. version 17.0, the baseline emissions are the product of electrical energy baseline  $EG_{BL,y}$  expressed in MWh of electricity produced by the renewable generating unit multiplied by the grid emission factor:

$$BE_{y,2} = EG_{BL,y} \cdot EF_{CO2,grid,y}$$

To determine the  $EF_{CO2,grid,y}$ , the “Tool to calculate the emission factor for an electricity system (version 02.2.1)” (/38/) is correctly applied. However, **CL#15 for CPA was raised** requesting PP to clarify the identified relevant electricity system for the CPA 01 instead of general description. By reviewing the revised DD, it is confirmed that the project electricity system and the connected electricity system are correctly described in the DD. The power generated by the project displaces the equivalent electricity generated by the CCPG, which is the project electricity system. The CCPG is a large regional grid, which covers Henan province, Hubei province, Hunan province, Jiangxi province, Sichuan province, and Chongqing city. Also, CCPG connects and imports electricity from other two regional grids, North West Power Grid and the North China Power Grid which is defined as the connected electricity system. CL#15 was closed.

The operating margin emission factor ( $EF_{OM}$ ) was determined using the simple OM method and the ex-ante option using a 3-year generation-weighted average, based on the most recent data available at the time of PoA GSC. The build margin emission factor ( $EF_{BM}$ ) was determined using the ex-ante and the deviation of the baseline methodology of AM0005 (*M-DEV0004: Application of AM0005 and AMS-I.D in China*) agreed by the EB (/51/), because plant specific data are not available in China. The emission factor of the thermal power plants was calculated by the proportion of the emissions of coal, gas and oil times the emission factor of the best available coal, gas and oil power plant as defined and published by the Chinese DNA (/68//69//70//71/). The new thermal capacity installation that exceeded 20% in the last years, for which data was available, was finally assessed with the build margin emission factor ( $EF_{BM}$ ).

The combined margin emission factor ( $EF_{CM}$ ) was determined using the weighted average CM method. The default weighting values for  $EF_{OM}$  and  $EF_{BM}$  are 0.5 as per “Tool to calculate the emission factor for an electricity system (version 02.2.1)”. Thus, the combined margin emission factor ( $EF_{CM}$ ) is 0.7244tCO<sub>2</sub>e/MWh and fixed for the whole crediting period.

#### 4.9.2 Project emissions ( $PE_y$ )

According to the adopted methodologies, project emissions are to be calculated as:

$$PE_y = PE_{power,y} + PE_{flare,y} + PE_{process,y}$$

(1)  $PE_{power,y}$ : Emissions from the use of fossil fuel or electricity for the operation of the installed facilities in the year  $y$  (tCO<sub>2</sub>e)

According to AMS-III.G, project emissions from electricity consumption are determined as per the procedures described in AMS-I.D. According to AMS-I.D, the net electricity supplied to the grid is the difference between the measured quantities of the grid electricity export and the import. Thus, the electricity consumed by the project is already considered in the net electricity supplied to the grid ( $EG_{BL,y}$ ). Therefore,  $PE_{power,y}$  is 0.

(2)  $PE_{flare,y}$ : Emissions from flaring or combustion of the landfill gas stream in the year  $y$  (tCO<sub>2</sub>e)

The CPA may destroy part of the recovered landfill gas by flaring. Therefore,  $PE_{flare,y}$  are determined following the procedure described in the “Tool to determine project emissions from flaring gases containing methane” (/37/). CME will document in the CPA-DD, which type of flare and which approach to determine the flare efficiency is used.

In case of open flares, the flare efficiency in the hour  $h$  ( $\eta_{flare,h}$ ) is

- 0% if the flame is not detected for more than 20 minutes during the hour  $h$ .
- 50%, if the flame is detected for more than 20 minutes during the hour  $h$ .

In case of enclosed flares and use of the default value for the flare efficiency, the flare efficiency in the hour  $h$  ( $\eta_{flare,h}$ ) is:

- 0% if the temperature in the exhaust gas of the flare ( $T_{flare}$ ) is below 500 °C for more than 20 minutes during the hour  $h$ .
- 50%, if the temperature in the exhaust gas of the flare ( $T_{flare}$ ) is above 500 °C for more than 40 minutes during the hour  $h$ , but the manufacturer’s specifications on proper operation of the flare are not met at any point in time during the hour  $h$ .

- 90%, if the temperature in the exhaust gas of the flare ( $T_{\text{flare}}$ ) is above 500 °C for more than 40 minutes during the hour  $h$  and the manufacturer's specifications on proper operation of the flare are met continuously during the hour  $h$ .

Because the default value is used, Mass flow rate of methane in the residual gas in the hour  $h$  is calculated as:  $TM_{RG,h} = FV_{RG,h} \times fv_{CH_4, RG,h} \times \rho_{CH_4,n}$

Thus, the project emissions from flaring of the residual gas stream in year  $y$  is calculated as:

$$PE_{\text{flare},y} = \sum_{h=1}^{8760} TM_{RG,h} (1 - \eta_{\text{flare},h}) \times \frac{GWP_{CH_4}}{1000}$$

(3)  $PE_{\text{process},y}$ : Emissions from the landfill gas upgrading process in the year  $y$  (tCO<sub>2</sub>e)

The CPA recovers LFG for power generation and does not involve upgrading process, therefore,  $PE_{\text{process},y}$  is equal to 0.

#### 4.9.3 Leakage emissions ( $LE_y$ )

According to AMS-III.G:

*If the methane recovery technology is equipment transferred from another activity, leakage effects are to be considered.*

According to AMS-I.D:

*If the energy generating equipment is transferred from another activity, leakage is to be considered.*

This will be considered at CPA level. For CPA 01, there is no equipment transferred from another activity, thus there are no leakage emissions.

#### 4.9.4 Emission Reductions ( $ER_y$ )

##### Emission Reductions (ex-ante)

According to methodologies applied and justification for each equation in the PoA, the expected emission reductions achieved by the CPA are estimated ex-ante as:

$$\begin{aligned} ER_{y,\text{estimated}} &= BE_y - PE_y - LE_y \\ &= p_{\text{captured}} \cdot BE_{CH_4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH_4} + EG_{BL,y} \cdot EF_{CO_2,grid,y} - PE_{\text{flare},y} - LE_y \end{aligned}$$

##### Emission Reductions (ex-post)

According to AMS-III.G, the actual emission reduction achieved by the CPA will be calculated using the amount of methane recovered and destroyed/gainfully used by the project activity, calculated as:

$$ER_{y,\text{calculated}} = (MD_y - MD_{reg,y}) \cdot GWP_{CH_4} - PE_y - LE_y$$

$MD_y$  is methane captured and destroyed/gainfully used by the project activity in the year  $y$  (t<sub>CH<sub>4</sub></sub>) and calculated as:

$$MD_y = w_{CH_4,y} \cdot D_{CH_4,y} \cdot \sum_i LFG_{i,y}$$

Given that in the CPA, LFG is destroyed either via flaring or combustion for power generation, the following equation is established:

$$\sum_i LFG_{i,y} = LFG_{\text{total},y} = LFG_{\text{flare},y} + LFG_{\text{electricity},y}$$

In conclusion, actual emission reductions are calculated as:

$$ER_{y,\text{calculated}} = (w_{CH_4,y} \cdot D_{CH_4,y} \cdot LFG_{\text{total},y} - MD_{reg,y}) \cdot GWP_{CH_4} + EG_{BL,y} \cdot EF_{CO_2,grid,y} - PE_y - LE_y$$

**CAR#14 for PoA was raised** requesting to provide a transparent ex ante calculation of project emissions, baseline emissions, and leakage emissions expected during the crediting period, applying all relevant equations provided in the selected methodologies as per annex 13 EB66. Ex ante calculation of project emissions, baseline emissions, and leakage emissions have been correctly reported in section B.6.3 of part II of PoA DD version 3.0 and complying with the methodologies and tools applied in the PoA. CAR#14 was closed.

#### 4.10 Application of Monitoring Methodology and Monitoring Plan

The CPA covered in the proposed PoA recovers the LFG from the MSW disposal site for electricity generation with possible flare equipped. AMS-III.G. version 7.0 and AMS-I.D. version 17.0 are applied for determining the monitoring plan. The following steps were taken to assess the monitoring plan of the proposed project.

##### 4.10.1 Compliance of the monitoring plan with the approved methodology

According to AMS-III.G. version 7.0, AMS-I.D. version 17.0 and the tools quoted, the following parameters are required to be monitored and validated:

No.	Parameter	Measurement methods and procedures as per the methodologies and tools applied	Validation opinion
1.	$PE_{power,y}$	As per the procedure in the AMS-I.D. Electricity consumption is directly metered or alternatively be determined by assuming that all relevant electrical equipment operate at full rated capacity, plus 10% to account for distribution losses, for 8760 hours per annum	According to AMS-I.D, the electricity consumption has been considered in the net electricity supplied to the grid ( $EG_{BL,y}$ ). Thus, this parameter is not required to be monitored separately. Please refer to parameter 8.
2.	$PE_{flare,y}$	As per the "Tool to determine project emissions from flaring gases containing Methane".	In order to monitor this parameter, $T_{flare}$ , $w_{CH4,y}$ , and $LFG_{flare,h}$ are monitored in the PoA. Please refer to parameter 3, parameter 4, and parameter 5.
3.	$PE_{process,y}$	As per relevant provisions in AMS-III.H	The CPA recovers LFG for power generation and does not involve upgrading process, therefore, $PE_{process,y}$ is zero and not to be monitored.
4.	$LFG_{i,y}$	Continuous flow measurement with accumulated volume recording (e.g. hourly/daily accumulated reading)  In all cases, the amount of landfill gas recovered, fuelled, flared or otherwise utilized (e.g. injected into a natural gas distribution grid or distributed via a dedicated piped network) shall be monitored <i>ex post</i> , using continuous flow meters.	As per the requirement of the methodologies and related tools, $LFG_{electricity,y}$ will be continuously measured by flow meters.  In case of flaring, $LFG_{flare,h}$ will be continuously measured by flow meter.  Besides, $LFG_{total,y}$ will also be continuously measured by flow meter.  $LFG_{electricity,y}$ , $LFG_{flare,h}$ , and $LFG_{total,y}$ will be recorded at least once per hour and aggregated monthly and yearly.  For CPA 01, $LFG_{electricity,y}$ , $LFG_{flare,h}$ , and $LFG_{total,y}$ will be continuously measured by flow meters, recorded at least once per hour and aggregated monthly and yearly. Flow meter with accuracy of 1.0 should be calibrated once per year in accordance with the national standard.



No.	Parameter	Measurement methods and procedures as per the methodologies and tools applied	Validation opinion
			<b>CL#16 for CPA was raised</b> requesting PP to clarify why F5 is not used for measuring $LFG_{\text{electricity},y}$ in section D.7.1 of CPA-01 and please clarify why the sum of all reading of F2-F5 is the total LFG flow rate in section D.7.2. By validating the revised PDD, $LFG_{\text{electricity},y}$ will be correctly monitored by flow meter F2-F5 and the sum of all reading of F2-F5 is the total LFG flow rate used for electricity generation. CAR#16 was closed.
5.	$w_{CH_4,y}$	<p>The fraction of methane in the gas should be measured with a continuous analyser (values are recorded with the same frequency as the flow) or, alternatively, with periodical measurements at a 90/10 confidence/precision level.</p> <p>It shall be measured using equipment that can directly measure methane content in the landfill gas - the estimation of methane content of landfill gas based on measurement of other constituents of landfill gas such as <math>CO_2</math> is not permitted. The methane content measurement shall be carried out close to a location in the system where a landfill gas flow measurement takes place, and at the same basis (wet or dry).</p>	<p><math>w_{CH_4,y}</math> is continuously measured by a gas analyser and averaged hourly or at a shorter time interval.</p> <p>The gas analyser with accuracy of 2% should be calibrated (including zero verification with an inert gas (e.g. <math>N_2</math>)) at least every one year with a standard gas.</p>
6.	$T$	<p>Shall be measured at the same time when methane content in landfill gas (<math>w_{CH_4,y}</math>) is measured.</p> <p>The temperature of the gas is required to determine the density of the methane combusted. If the landfill gas flow meter employed measures flow, pressure and temperature and displays or outputs the normalised flow of landfill gas, then there is no need for separate monitoring of pressure and temperature of the landfill gas</p>	<p>In case the flow meter can neither measure temperature nor pressure simultaneously, the thermometer and manometer should be installed.</p> <p>For Temperature in the exhaust gas of the flare (<math>T_{\text{flare}}</math>), it is continuously measured by a Type N thermocouple. This is also applied in CPA 01. Thermocouples with accuracy of 1% should be replaced or calibrated every year.</p>
7.	$P$	<p>Shall be measured at the same time when methane content in landfill gas (<math>w_{CH_4,y}</math>) is measured.</p> <p>The pressure of the gas is required to determine the density of the methane combusted. If the landfill gas flow meter employed measures flow, pressure and temperature and displays or outputs the normalised flow of landfill gas, then there is no need for separate monitoring of</p>	<p>In case the flow meter can neither measure temperature nor pressure simultaneously, the thermometer and manometer should be installed.</p> <p>This is also applied in CPA 01.</p>

No.	Parameter	Measurement methods and procedures as per the methodologies and tools applied	Validation opinion
8.	$EG_{BL,y}$	<p>pressure and temperature of the landfill gas.</p> <p>Continuous monitoring, hourly measurement and at least monthly recording.</p> <p>Measurements are undertaken using energy meters. Calibration should be undertaken as prescribed in the relevant paragraph of .General Guidelines to SSC CDM Methodologies.</p> <p>If applicable, measurement results shall be cross checked with records for sold/purchased electricity (e.g. invoices/receipts). The net electricity export/supplied to a grid is the difference between the measured quantities of the grid electricity export and the import. If applicable, cross check net electricity supplied to a grid as gross energy generation in the project activity power plant minus the auxiliary/station electricity consumption, technical losses and electricity import from the grid to the project power plant measured at the grid interface/connection used for billing purposes.</p>	<p>It is continuously measured by electricity meter(s), recorded hourly, and aggregated monthly. Monitoring data will be cross checked with invoices for electricity sale.</p> <p>This is also applied in CPA 01. Electricity meter (Accuracy: 1.0 or more) will be subject to calibration yearly, in accordance with Stipulated Procedures for Technical Administration of Electricity Metering Equipment (DL/T448-2000).</p>
9	$MD_{reg,y}$	Methane emissions that would be captured and destroyed to comply with national or local safety requirement or legal regulations in the year y	The laws and regulations will be yearly checked by PP to monitor the requirement about LFG capture and destroy.
10	Other flare operation parameters (only for open flare)	NA	This should include all data and parameters that are required to monitor whether the flare operates within the range of operating conditions according to the manufacturer's specifications including a flame detector in case of open flares.

It is confirmed that all necessary monitoring parameters required by the methodologies and related tools applied are included in the DD version 3.1.

#### 4.10.2 Implementation of the plan

It is validated that the monitoring approach is in line with current good practice and the monitoring plan ensures the verifiability of data quality and correctness and the delivery of high quality data. The leakage is determined at CPA level. There is no parameter needs to be monitored for the calculation of leakage. The project owner has the experience of operating power generation project applying LFG and the staff members are qualified and familiar with this technology.

Through document review of the monitoring plan in the DD and interview with the implementer of CPA 01, it has been validated that the implementer are capable of implementing the monitoring plan and the monitoring arrangements described in the monitoring plan are feasible within the project design.



The authority and responsibility of project management is clearly described in the monitoring plan:

The general manager ensures that staff in the monitoring system has the ability to deal with the assigned tasks. The CDM Manager reports monthly to the General Manager (GM) about the project performance and monitored data. Operators will take turns to work in the control centre 24 hours a day. They will be in charge of data supervision, filling operation report forms and checking and inspecting the system. Considering the implementer is a wholly owned subsidiary of the CME, and the CME has previous experience of developing and operating similar CDM projects, it is deemed that the management structure will be properly developed.

Procedures for training of the monitoring staff are identified in the monitoring plan and the training plan of the project. QA/QC procedures are described in the DD. The monitoring plan provides information on the measuring equipment and its location.

Therefore, it was confirmed that the means of implementation of the monitoring plan, including the data management and quality assurance and quality control procedures in the monitoring plan are sufficient to ensure that the emission reductions achieved by/resulting from the proposed CDM project activity can be reported ex post and verified.

#### **4.11 Environmental Impacts**

According to the laws and regulations of the host country, each LFG capture and usage plant has to be specifically authorized, with regard to its environmental compliance, by the competent Environmental Bureau. Therefore, the environmental analysis has to be performed specifically for each CPA.

It is validated that the EIA of CPA 01 (/8/) was completed by Shangrao City Environmental Science Institute, an accredited third party (/19/), in 10/2011. The EIA has been approved by the Environmental Protection Bureau of Jiangxi Province on 23/02/2012 (/9/). The EIA shows that the project complies with environmental legislations of the People's Republic of China.

**CL#7 for CPA was raised** regarding the mitigation measures for air pollution during construction period. By reviewing the CPA 01 DD version 3.0 and EIA report, it is confirmed that the mitigation measures for air pollution has been clearly described as per EIA. And the mitigation measure for wastewater, noise, and solid waste pollution also has been clearly described as per EIA. The EIA has been approved and there will be no significant impact on the environment. CL#7 was closed.

#### **4.12 Local Stakeholder Comments**

**CAR#9 for PoA was raised** requesting to clarify whether the local stakeholder consultation is performed at the PoA level or CPA level because of inconsistency in section F of PoA DD version 2.0. And please justify the choice of level at which the local stakeholder consultation is undertaken. Considering stakeholders who are close to the project site have a more specific understanding of the details of the project and related impact. Therefore, the local stakeholder consultation process is selected to perform at CPA level. PoA DD version 3.0 has been revised. CAR#9 was closed.

The local stakeholder consultation is earlier than the PoA 1<sup>st</sup> GSC dated 24/01/2012. The stakeholders were informed about the stakeholder meeting through posters on 09/09/2011 (/23/). The stakeholder consultancy meeting was organized at the meeting room of Shangrao landfill site on 25/10/2011. 25 questionnaires were distributed to local residents and returned during the meeting.

The assessment team confirmed that the stakeholders consulted are correctly identified and relevant. The summary of comments presented in the DD has been cross checked with the questionnaires (/25/) and the meeting minutes (/24/). **CAR#8 for CPA was raised** regarding the inconsistency between the questions and the summary of comments within the specific CPA DD version 2.0. By reviewing the questionnaires and revised CPA DD version 3.0, it is confirmed that the consistency are kept. CAR#8 was closed.

No negative comments were received by reviewing the questionnaires and stakeholder consultation meeting minutes and no corrective action had to be taken. Hence the local stakeholder consultation has been adequately performed according to the CDM requirements.

## 5. Comments by Parties, Stakeholders and NGOs

In accordance with para. 13 of PCP version 02, the Programme of Activity design document of a proposed CDM POA Programme of Activity shall be made publicly available and the DOE shall invite comments on the validation requirements from Parties, stakeholders and UNFCCC accredited non-governmental organizations and make them publicly available. This chapter describes this process for this Programme of Activity.

### 5.1 Description of how and when the POA-DD, CPA-DD Generic and CPA-DD was made publicly available

The PoA was first published for GSC with large scale methodologies on UN website:

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/FFHNB44R5OIR99WCQZDUM3LFQR6ERS/view.html> and was open for comments from 24/01/2012 to 22/02/2012. One comment was received and published. Please refer to section 5.2.

The PoA was second published for GSC with small scale methodologies on UN website:

<http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/7DLW421WP4TG4ISYXILUUS8TO0HUIQ/view.html> and was open for comments from 27/04/2012 to 26/05/2012. No comment was received.

### 5.2 Compilation of all Comments Received

Comment Number	Date Received	Submitter	Comment
1	21/02/2012	Gerry Hamaliuk <a href="mailto:Gerry_Hamaliuk@genpower.net">Gerry_Hamaliuk@genpower.net</a>	<p>The Additionality analysis shows that the proposed CPA with CER revenue is much below the hurdle rate specified for such projects in China, so does not qualify as a CDM project – another CPA will need to be used for the CPA-DD for this PoA.</p> <p><b>COMMENT FROM DOE:</b> The CME republished the PoA for GSC in order to use small scale methodologies not because of the comment. According to Para 117 VVS, only financial indicator without the revenue from the sale of CERs shall be validated. Thus, the IRR with CERs revenue is not the criteria for additionality analysis.</p>

### 5.3 Explanation of How Comments Have Been Taken into Account

Comment	Explanation
The Additionality analysis shows that the proposed CPA with CER revenue is much below the hurdle rate specified for such projects in China, so does not qualify as a CDM project – another CPA will need to be used for the CPA-DD for this PoA.	<p>According to Para 117 VVS, only financial indicator without the revenue from the sale of CERs shall be validated. Thus, the IRR with CERs revenue is not the criteria for additionality analysis.</p> <p>And the IRR with CERs revenue in the specific CPA DD version 2.0 and version 3.1 is higher than the benchmark. The assessment team validated the IRR difference in the original version of the DD and final version of the DD. It is found that the ERs for financial analysis in the specific CPA DD version 1.0 is calculated as per the ACM0002 version 12.0 and Tool “Emissions from solid waste disposal sites” (version 06.0.0), which is not consistent with the FSR. And the Annual average Operation &amp; Maintenance Costs in the specific CPA DD version 1.0 is also not consistent with the FSR.</p>

## 6. List of Persons Interviewed

Date	Name	Position	Short Description of Subject Discussed
28-29/03/2012	Yongmei FANG	Commissioner, CME	The relationship of the CPA 01 implementer and the CME, CME management system, Legality of the CPA 01, project approval status, construction and operation schedule, stakeholder consultation process.
28-29/03/2012	Rui CHAO	Commissioner, CME	The relationship of the CPA 01 implementer and the CME, CME management system, Legality of the CPA 01, project approval status, construction and operation schedule, stakeholder consultation process.
28-29/03/2012	Luca MORGANTI	Technical team leader, First Climate (Beijing) Ltd.	Applicability of selected methodology, Baseline determination, Emission reductions calculation, Monitoring plan.
28-29/03/2012	Zhifang HUANG	Project Manager, First Climate (Beijing) Ltd.	Applicability of selected methodology, Baseline determination, Emission reductions calculation, Monitoring plan.
28/03/2012	Chenghong DI	Chief, DRC of Shangrao City	FSR approval process, policies, the local government's attitude toward the project.
28/03/2012	Linyong DING	Chief, Environmental Protection Bureau of Shangrao City	EIA approval process, policies, the environment influence of the CPA 01, the local government's attitude toward the project.
28/03/2012	Zhongdong ZHANG	Plant manager, Shangrao Landfill site	The capacity of the landfill site and character of disposed MSW. The management process of Shangrao landfill
28/03/2012	Hualin ZHANG	Local villager, Xiyuan Village	Stakeholder consultation process, influence from the CPA 01, the local residents' attitude toward the project.

## 7. Document References

Category 1 Documents (documents provided by the Client that relate directly to the GHG components of the Programme of Activity, (i.e. the CDM POA Programme of Activity Design Document, confirmation by the host Party on contribution to sustainable development and written approval of voluntary participation from the designated national authority):

- /1/ The PoA-DD (Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities), version 1.0 dated 28/12/2011, version 2.0 dated 18/04/2012, version 3.0 dated 01/08/2012, version 3.1 dated 27/08/2012, version 3.2 dated 24/12/2012
- /2/ The Generic CPA-DD (CPA-XX: XX (the location) MSW landfill site LFG recovery to power project), version 1.0 dated 28/12/2011, version 2.0 dated 18/04/2012, version 3.0 dated 01/08/2012, version 3.1 dated 27/08/2012, version 3.2 dated 24/12/2012
- /3/ The Specific CPA-DD (CPA-01: Shangrao MSW landfill site LFG recovery to power project), version 1.0 dated 28/12/2011, version 2.0 dated 18/04/2012, version 3.0 dated 01/08/2012, version 3.1 dated 27/08/2012, version 3.2 dated 24/12/2012
- /4/ ER calculation spreadsheet for CPA 01 version 01 and version 02
- /5/ IRR calculation spreadsheet for CPA 01
- /6/ FSR for CPA 01 dated 08/2010
- /7/ FSR approval for CPA 01 dated 12/06/2012
- /8/ EIA for CPA 01 dated 10/2011
- /9/ EIA approval for CPA 01 dated 23/02/2012
- /10/ Board meeting minutes for investing the CPA dated 06/09/2010
- /11/ GPS records measured by SGS
- /12/ Questionnaire and stakeholder meeting minutes for local stakeholder consultation for CPA 01
- /13/ Statement of no public fund involved issued by the implementer dated 12/06/2012
- /14/ Grid Connection Approval issue by Jiangxi province Power Company dated 13/03/2012
- /15/ PoA management system prepared by the CME
- /16/ Statement of awareness of inclusion in the PoA dated 12/06/2012
- /17/ Cooperation contract signed between CPA 01 implementer and landfill owner dated 15/07/2010
- /18/ Accreditation certificate for Zhengzhou Design and Research Institute of Coal Industry Co., Ltd (Cer. No.:160003-sy)
- /19/ Accreditation certificate for Shangrao City Environmental Science Institute (Guo Huanping Class B No.: 2311),  
[http://xxgk.jiangxi.gov.cn/gcly/gcjslyxyxxgk/cydwgkxx/zzxx/201201/t20120130\\_623058.htm](http://xxgk.jiangxi.gov.cn/gcly/gcjslyxyxxgk/cydwgkxx/zzxx/201201/t20120130_623058.htm)
- /20/ The actual amount of disposed MSW in the Shangrao landfill site issued by the landfill owner in 2009-2011
- /21/ The actual average characteristics of MSW in the Shangrao landfill site issued by the Shangrao landfill owner in 2010
- /22/ The meteorological data issued by Meteorological Bureau of Shangrao City in Jiangxi province dated 23/12/2011
- /23/ Poster for informing the local stakeholder about the stakeholder meeting dated 09/09/2011
- /24/ Meeting minutes for local stakeholder meeting dated 25/10/2011
- /25/ Questionnaires for local stakeholder consultation
- /26/ Chinese LoA dated 12/2012  
<http://cdm.ccchina.gov.cn/WebSite/CDM/UpFile/File3021.pdf>
- /27/ German LoA dated 28/11/2012  
<https://www.jicdm.dehst.de/promechg/pages/project2.aspx?PID=3580&ctit=BCCY&ccat=&cscop=&cpac=&cstat=&chost=&cred1=&cred2=&cpoa=&cldc=&cmpro=>
- /28/ MoC dated 13/12/2012  
<http://www.firstclimate.com/company/management-board.html>  
<http://www.bccynewpower.com/Default.aspx>
- /29/ ERPA dated 08/11/2011

Discuss the key changes in the final POA-DD against the version published for the international stakeholder consultation

POA-DD Version	Date of Revision	Main changes reason for Revision
Version 1.0	28/12/2011	The 1 <sup>st</sup> GSC with large scale methodologies
Version 2.0	18/04/2012	The 2 <sup>nd</sup> GSC with small scale methodologies (validation basis)
Version 3.0	01/08/2012	<ol style="list-style-type: none"> <li>1. Section A.2 of part I was revised regarding the technology applied in the PoA, the sustainable development, the scenario, the sectoral scope and type of the PoA.</li> <li>2. Eligibility criteria No. 8 and No. 9 in the section B.2 of part I were revised regarding unclear description</li> <li>3. Section B.3 of part I was revised regarding the possibility of combination of methodologies.</li> <li>4. The management system in section C of part I was revised as per para 17 of annex 3 EB65</li> <li>5. The start date of PoA in section D.1 of part I was revised.</li> <li>6. Section F of part I was revised regarding the choice of level for local stakeholder comments</li> <li>7. Section B.3 of Part II was revised as per annex 13 EB66</li> <li>8. Section B.4 of part II was revised regarding the percentage of landfill sites in China (excluding the CDM projects) which flared and utilized LFG by the end of 2009</li> <li>9. Eligibility criteria No. 2 and No. 4 in the section B.5 of part II were revised regarding double counting and CPA start date</li> <li>10. Section B.6.3 of part II was revised to include all relevant equations provided in the selected methodologies as per annex 13 EB66.</li> </ol>
Version 3.1	27/08/2012	PoA title in the PoA DD is revised by CME
Version 3.2	24/12/2012	<ol style="list-style-type: none"> <li>1. Version 01 of "Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities" in section B.1 of Part II is updated to version 02.1</li> <li>2. Revising the contact info of Appendix 1 as per MoC</li> </ol>
CPA-DD Generic Version	Date of Revision	Main changes reason for Revision
Version 1.0	28/12/2011	The 1 <sup>st</sup> GSC with large scale methodologies
Version 2.0	18/04/2012	The 2 <sup>nd</sup> GSC with small scale methodologies (validation basis)
Version 3.0	01/08/2012	<ol style="list-style-type: none"> <li>1. Section A of part I was revised regarding the technology applied in the CPA, the sustainable development, the scenario, the sectoral scope and type of the PoA.</li> <li>2. Section A.4 in the generic CPA and CPA-01 was revised regarding the role of Henan BCCY New Power Industry Co., Ltd. ("BCCY")</li> <li>3. Section A.8.1 was revised regarding the determination of the start date of the generic CPA.</li> <li>4. Section D.1 was revised regarding the version of related methodologies and tools.</li> <li>5. Section D.3 was revised to include all relevant equations provided in the selected methodologies as per annex 13 EB66.</li> </ol>
Version 3.1	27/08/2012	PoA title in the CPA DD is revised by CME
Version 3.2	24/12/2012	Version 01 of "Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities" in section D.1 is

		updated to version 02.1
CPA-DD Specific Version	Date of Revision	Main changes reason for Revision
Version 1.0	28/12/2011	The 1 <sup>st</sup> GSC with large scale methodologies
Version 2.0	18/04/2012	The 2 <sup>nd</sup> GSC with small scale methodologies (validation basis)
Version 3.0	01/08/2012	<ol style="list-style-type: none"> <li>1. Section A was revised regarding the technology applied in the CPA, the sustainable development, the scenario, the sectoral scope and type of the PoA.</li> <li>2. Section A.4 in the generic CPA and CPA-01 was revised regarding the role of Henan BCCY New Power Industry Co., Ltd. ("BCCY")</li> <li>3. Section B.1 was revised regarding the mitigation measures during construction period.</li> <li>4. Section C was revised regarding the inconsistency of the questions and the summary of comments</li> <li>5. Section D.3 was revised to include all relevant equations provided in the selected methodologies as per annex 13 EB66.</li> <li>6. Section D.4 was revised regarding the percentage of landfill sites in China (excluding the CDM projects) which flared and utilized LFG by the end of 2009</li> <li>7. Section D.5 was revised regarding the event of investment decision</li> <li>8. Section D.6.1 was revised regarding the determination of <math>\phi_y</math>, <math>MCF_y</math>, and relevant electricity system</li> <li>9. Section D.7.1 was revised regarding the monitoring equipment for LFG<sub>electricity.y</sub></li> </ol>
Version 3.1	27/08/2012	PoA title in the CPA DD is revised by CME
Version 3.2	24/12/2012	<ol style="list-style-type: none"> <li>1. Version 01 of "Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities" in section D.1 is updated to version 02.1</li> <li>2. Revising the estimated start date of the CPA 01 and the starting date of the crediting date in the section A.8; estimated ERs are also revised accordingly</li> </ol>

Category 2 Documents (background documents used to check Programme of Activity assumptions and confirm the validity of information given in the Category 1 documents and in validation interviews):



- /30/ CDM Validation and Verification Standard -Version 03.0
- /31/ CDM Project Standard -Version 02.1
- /32/ CDM Project Cycle Procedure (Version 03.1)
- /33/ AMS-III.G: Landfill Methane Recovery - Version 7.0
- /34/ AMS-I.D: Grid connected renewable electricity generation - Version 17.0
- /35/ AMS-III.H: Methane recovery in wastewater treatment - version 16.0
- /36/ Emission from solid waste disposal sites - Version 06.0.1
- /37/ Tool to determine project emissions from flaring gases containing methane - Version 01
- /38/ Tool to calculate the emission factor for an electricity system - Version 02.2.1
- /39/ Guidelines on the demonstration of additionality of small-scale project activities -Version 09.0
- /40/ Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities - Version 02.1
- /41/ Guidelines on the assessment of investment analysis (version 05)
- /42/ Guidelines on assessment of de-bundling for SSC project activities-version 03
- /43/ Registration of a programme of activities as a single CDM project activity and issuance of CERs for a PoA -version 04.1
- /44/ Guideline for completing the PoA DD form for SSC - Version 02.0
- /45/ Guideline for completing the CPA DD form for SSC - Version 01.0
- /46/ PROGRAMME DESIGN DOCUMENT FORM FOR SMALL-SCALE CDM PROGRAMMES OF ACTIVITIES (F-CDM-SSC-PoA-DD) - Version 02.0
- /47/ COMPONENT PROJECT DESIGN DOCUMENT FORM FOR SMALL-SCALE COMPONENT PROJECT ACTIVITIES (F-CDM-SSC-CPA-DD) - Version 02.0
- /48/ Glossary of CDM Terms - Version 06.0
- /49/ General guidelines for SSC CDM methodologies - version 18
- /50/ Guidelines for the reporting and validation of plant load factors (version 01)
- /51/ M-DEV0004: Application of AM0005 and AMS-I.D in China
- /52/ F-CDM-MOC - Modalities of Communication statement - version 02.1
- /53/ China Development Report on Urban Domestic Refuse Disposal Industry 2010
- /54/ The CDM statistics issued by pipeline dated 01/11/2011
- /55/ Xuzhou Landfill Gas Utilisation Project, <http://www.xuzhoujob.com/News/3200942085210.html>
- /56/ Xining Landfills Gas Recovery Project, [http://www.ghfgw.gov.cn/gzgf/fgwwj/t20100824\\_345399.shtml](http://www.ghfgw.gov.cn/gzgf/fgwwj/t20100824_345399.shtml)
- /57/ Promoting Methane Recovery and Utilization from Mixed Municipal Refuse in China, Terminal Evaluation Report dated 12/2005, <http://erc.undp.org/evaluationadmin/downloadaddocument.html?docid=558>
- /58/ Circular on the Outcome of Nationwide Inspection on Hazard-free Treatment of Domestic Waste Landfill Sites dated 02/2007
- /59/ Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects (Guodianfa [2002] No.623), issued by the State Power Corporation of China on 10/09/2002
- /60/ Jiangxi Statistical Yearbook 2010
- /61/ FSR of project 5652
- /62/ The Interim Measures for Renewable Energy Power Tariff and Cost-sharing issued by NDRC, Files No.: Fagai Jiage [2006] 7, dated 04/01/2006
- /63/ The Notice on Electricity Tariff of Jiangxi Province, Files No.: Gan Fagai Shangjiayi [2005] 382, dated 29/04/2005
- /64/ Enterprise Income Tax Law of the People's Republic of China
- /65/ Decision of the State Council on Amending the Interim Provisions on the Collection of Educational Surcharges
- /66/ Interim regulations on the city maintenance construction tax of the People's Republic of China
- /67/ Interim Regulations of the People's Republic of China on Income Tax of the Enterprise and other relevant provisions
- /68/ China Electric Power Yearbooks (2006, 2008-2010)
- /69/ China Energy Statistical Yearbooks (2008-2010)
- /70/ Compilation of Electric Power Industry Statistics (2008-2010)
- /71/ 2011 Baseline Emission Factors for Regional Power Grids in China

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## A.1 Annex 1: Local Assessment

This checklist is designed to provide confirmation of in-country data and information provided in the Programme of Activity Design Document for Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities and CPA-01: Shangrao MSW landfill site LFG recovery to power project.

It serves as a “**reality check**” on the Programme of Activity that is completed by a local assessor from SGS China.

Issue	Findings	Source/Mean of Verification	Further Action / Clarification / Information Required?
1. Evidence of the legality of the project.	CAR#13 was raised requesting providing the FSR approval. Relevant evidences have been provided to show the legality of the project.	Business license (Registration No.: 361100110002257), Cooperation contract signed between the CPA01 implementer and Shangrao landfill owner, FSR and its approval were validated.	CAR#13 for CPA was raised to provide the FSR approval and closed after FSR provided.
2. Interview with local stakeholders and realize actual status of the project activity	Local residents and government has realized the actual status of the project and support the project by according to the FSR approval, EIA approval and the local stakeholder consultation. No findings were raised in this regard.	Representative from Shangrao City DRC, Environmental protection bureau, Shangrao landfill site, and a local resident have been interviewed.	No
3. In regard to the Stakeholder's comments mentioned in PDD, please provide the contact details of those who attended the meeting.	Local residents, governors from Shangrao MSW Management Department, and staff from Shangrao Landfill site were attended the stakeholder consultation meeting. No findings were raised in this regard.	The questionnaires and minutes for stakeholders consultation meeting have been validated by SGS assessment team.	No
4. Verify the Environmental Impact Assessment and its approval.	EIA was prepared by the qualified third party and approved by Environmental Protection Bureau of Jiangxi Province. No findings were raised in this regard.	EIA Report and its approval were validated.	No

Issue	Findings	Source/Mean of Verification	Further Action / Clarification / Information Required?
5. Baseline scenario of the project	CL#11 for the CPA was raised regarding the percentage of landfill sites in China (excluding the CDM projects) which flared and utilized LFG by the end of 2009 in the section D.4.  The baseline for the project is that LFG from the Shangrao landfill site is directly released to the atmosphere without recovery/flare and electricity provided by the grid.	Technical code/standard and reports issued by third party are validated. It is also validated by onsite physical inspection and interview.	CL#11 for the CPA was closed after reviewing the revised CPA DD.
6. Application of methodology	The applicability conditions for each methodology are clearly reported in the DD.  Training plan, maintenance plan, operational manual and etc have been provided.  No findings were raised in this regard.	All necessary monitoring parameters required by the methodologies applied are included in the monitoring plan of the CPA DD version 3.0 by document review, staff interview, and onsite physical inspection.	No.

## A.2 Annex 2: Validation Checklist

**Table 1 - Participation Requirements for Clean Development Mechanism (CDM) Programme of Activities (Ref POA-DD, Letters of Approval and UNFCCC website)**

Requirement	Reference Criteria	SGS Assessment	Conclusion/ CARs/CLs
<b>1. Letter of Approval/Authorization (LoA)</b>			
<p>1.1. Has the DNA of each Party involved in the proposed CDM PoA in section A.4 of the PoA DD provided a written letter of approval which confirms</p> <p>1.1.1. The Party is a Party to the Kyoto Protocol</p> <p>1.1.2. Participation is Voluntary</p> <p>1.1.3. The Host Party confirming that the proposed CDM PoA contributes to sustainable development of the country</p> <p>1.1.4. It refers to the precise proposed CDM PoA title in the PoA DD being submitted for registration</p> <p>1.2. Whether the LoA is unconditional with respect to (a)-(d) above?</p> <p>1.3. Has the LoA been issued by the respective party's DNA and is valid for the proposed PoA under validation?</p> <p>1.4. Is the LoA from the project participant/Coordinating/managing entity (CME) or directly from the DNA, indicate the means of validation employed to assess the authenticity with DNA if the team doubt the authentic of LoAs?</p>	<p>Validation and Verification Standard, Version 02 (hereinafter referred to as VVS) Para. 39-42, 47-48, 51</p> <p>Project Standard, Version 01 (hereinafter referred to as PS) Para. 169-173</p> <p>EB55 Annex 38 Para. 9-10</p>	<p>The P.R. China has ratified the Kyoto Protocol on 30/08/2002 and has appointed a DNA. <a href="http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php">http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php</a></p> <p>The Germany has ratified the Kyoto Protocol on 31/05/2002 and has appointed a DNA. <a href="http://unfccc.int/parties_and_observers/parties/annex_i/items/2774.php">http://unfccc.int/parties_and_observers/parties/annex_i/items/2774.php</a></p> <p>The Chinese LoA has been provided to the assessment team by the PP. By reviewing the China DNA website, it is validated that:</p> <p>(a) China approved the Kyoto Protocol to the UNFCCC on 30/08/2002 and is a Party to the Kyoto Protocol;</p> <p>(b) The PoA and the 1st CPA of Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities comply with the permission requirements provided for in the Measures for Operation and Management of CDM project in China and assists China in achieving sustainable development;</p> <p>(c) Henan BCCY New Power Industry Co., Ltd is</p>	<p><del>CAR #1</del> OK</p>

		<p>authorized as China's participant to voluntarily participate in and carry out the PoA as the Coordinating/Managing Entity;</p> <p>(d) Hennan BCCY New Power Industry Co., Ltd. is permitted to transfer CERs from 1<sup>st</sup> CPA (CPA-01: Shangrao MSW landfill site LFG recovery to power project) of the PoA to First Climate Markets AG which is authorized by the Government of Germany.</p> <p>The German LoA has been provided by the PP and available on the German JI and CDM Project Data Base. It is validated that:</p> <p>(a) The Germany is the party to the Kyoto Protocol;</p> <p>(b) The Germany participates voluntarily in the CDM and the notified project;</p> <p>(c) The Germany grants its approval of the project activity "Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities" within the framework of CDM;</p> <p>(d) First Climate Markets AG is authorised to participate in this project.</p> <p>In accordance with Para. 38-49 VVS version 03.0, it is confirmed by the assessment team that the German LoA is unconditional and authentic.</p> <p>CAR#1 was closed</p>	
<b>2. Contractual Relationship</b>			
2.1. Whether these project participants or CME contracted SGS to perform the validation of the PoA?	Project Cycle Procedure, Version 02 (hereinafter referred to as PCP) Para.12, 14	First climate Markets AG is the project participant from Annex I Party and Henan BCCY New Power Industry Co., Ltd (BCCY) is the CME, and both are listed in PoA DD.	OK

		Henan BCCY New Power Industry Co., Ltd. has contracted with SGS for the PoA validation.	
2.2. When submitting a request for registration of the proposed PoA, all project participants or CME with a contractual relationship with the SGS for validation of the proposed CDM PoA shall be listed in the PoA-DD, unless they have provided a letter of voluntary withdrawal from the PoA.	PCP Para.15	Yes, the project participants and CME listed in the POA DD published for global stakeholder consultation are both still listed in the POA DD at the time of the request for registration.	OK
<b>3. Global Stakeholder Consultation (GSC)</b>			
3.1. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for a minimum of 30 days, and the project design document and comments have been made publicly available	VVS Para. 34-36 PCP Para.12-21	<p>The 1<sup>st</sup> GSC started on 24/01/2012 and closed on 22/02/2012.</p> <p>One comment was received and published: <a href="http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/FFHNB44R5OIR99WCQZDUM3LFQR6ERS/view.html">http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/FFHNB44R5OIR99WCQZDUM3LFQR6ERS/view.html</a></p> <p><b>Comment:</b> The Additionality analysis shows that the proposed CPA with CER revenue is much below the hurdle rate specified for such projects in China, so does not qualify as a CDM project – another CPA will need to be used for the CPA-DD for this PoA.</p> <p><b>Validation:</b> The CME republished the PoA for GSC in order to use small scale methodologies not because of the comment. According to Para 117 VVS, only financial indicator without the revenue from the sale of CERs shall be validated. Thus, the IRR with CERs revenue is not the criteria for additionality analysis.</p> <p>Due to the large methodologies applied in the PoA DD version 01 is changed as small methodologies by the PP, the 2<sup>nd</sup> GSC started on 27/04/2012 and closed on 26/05/2012.</p> <p>No comment was received and published: <a href="http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/FFHNB44R5OIR99WCQZDUM3LFQR6ERS/view.html">http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/FFHNB44R5OIR99WCQZDUM3LFQR6ERS/view.html</a></p>	OK

		<a href="n/DB/7DLW421WP4TG4ISYXILUUS8TO0HUIQ/view.html">n/DB/7DLW421WP4TG4ISYXILUUS8TO0HUIQ/view.html</a>	
<b>4. Modalities of Communication (MoC)</b>			
4.1. Has the corporate identity of all project participants and focal points included in the Modalities of Communication (MoC) statement, as well as the personal identities, including specimen signatures and employment status, of their authorized signatories been validated by: (a) Directly checking evidence for corporate, personal identity and other relevant documentation; (b) Notarized documentation; or (c) Written confirmation from the PP or CME that submits to it the MoC statement that all corporate and personal details, including specimen signatures, are valid and accurate.	VVS Para. 53-57	CAR#2 was raised requesting PP to provide the MoC. MoC dated 13/12/2012 has been validated by the assessment team. Related information is consistent with Annex 1 of the PoA version 3.2. By verifying the website of the First Climate Markets AG, it is confirmed that the primary and alternate signed personal are from the management board. The primary signed personal of the CME in the MoC is same as that in the contract signed with SGS. And the alternate signed personal of the CME in the MoC is the key contact during signing the contract with SGS and project manager of this PoA. It is confirmed that MoC template version 02.1 is correctly applied and in compliance with the PS. Thus CAR #2 was closed.	<del>CAR#2</del> OK
4.2. Whether the MoC statement has been correctly completed and duly authorized by checking: (a) The latest version of the form .Modalities of Communication statement. (F-CDM-MOC) has been used; (b) The information required as per the F-CDM-MOC, including its annex 1, is correctly completed; (c) The project participant's authorized signatories signing the F-CDM-MOC correspond to the project participant's authorized signatories included in F-CDM-MOC, annex 1.	VVS Para. 59-60 PS Para. 174 PCP Para. 24-26, 30-32	Yes. The latest version of MoC template is used and correctly completed. The signatories' signings are confirmed.	OK
<b>5. Design Document (DD)</b>			
5.1. Whether the PoA DD/CPA DD was completed using the latest version of the PoA DD/CPA DD form appropriate to the type of project activity?	VVS Para. 62	The PoA and CPA correctly applies in PoA DD form (version 02.0) and CPA DD form (version 02.0) respectively, and following the Guidelines for completing the Programme Design Document Form for Small-scale CDM PoA (version 02.0) and	OK





		Guidelines for completing the Component Project Design Document Form for Small-scale CPA (version 01.0) without modifying/adding headings or logo, format or font.	
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**Table 2 – Part I. Programme of activities (PoA)**

Checklist Question	Reference Criteria	MoV*	SGS Assessment	Conclusion/ CARs/CLs																		
A. General Description of PoA																						
A.1. Title of PoA																						
A.1.1. Does the title of the proposed PoA clearly enable the reader to identify the unique CDM PoA DD?  A.1.2. Is there an indication of the current version number and the completed date of the PoA DD?	PS Para. 31	DR	<div>The tile of the POA DD “Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities” enables the reader to identify the unique CDM activity</div> <div>Yes, version of POA DD and corresponding dates are clearly described.</div> <table><tr><th>Version</th><th>Date</th><th>Comments</th></tr><tr><td>1.0</td><td>28/12/2011</td><td>First Issuance for GSC (as large scale)</td></tr><tr><td>2.0</td><td>18/04/2012</td><td>First Issuance for GSC (as small scale)</td></tr><tr><td>3.0</td><td>01/08/2012</td><td>Revised according to CAR&amp;CL</td></tr><tr><td>3.1</td><td>27/08/2012</td><td>Revised PoA title by CME</td></tr><tr><td>3.2</td><td>24/12/2012</td><td>Minor changes for the submission for registration</td></tr></table>	Version	Date	Comments	1.0	28/12/2011	First Issuance for GSC (as large scale)	2.0	18/04/2012	First Issuance for GSC (as small scale)	3.0	01/08/2012	Revised according to CAR&CL	3.1	27/08/2012	Revised PoA title by CME	3.2	24/12/2012	Minor changes for the submission for registration	OK
Version	Date	Comments																				
1.0	28/12/2011	First Issuance for GSC (as large scale)																				
2.0	18/04/2012	First Issuance for GSC (as small scale)																				
3.0	01/08/2012	Revised according to CAR&CL																				
3.1	27/08/2012	Revised PoA title by CME																				
3.2	24/12/2012	Minor changes for the submission for registration																				
A.2. Purpose and general description of the PoA																						
A.2.1. Does the description of the proposed CDM programme of activity provide and understanding of the nature of the PoA and its implementation?	VVS Para. 64  PS Para. 30	DR	LFG capture and usage is a process to produce electricity (or other forms of useful energy) in section A.2 of part I. However, only electricity is mentioned in the subsequent section of the PoA. CL#3 was raised for clarification. By reviewing the PoA DD version 3.0, it is clearly described: it is general situation that LFG capture and usage is a process capable of making use of the biogas spontaneously generated from the organic fraction of waste in landfills to produce electric power (or other forms of useful energy). And the core idea of the PoA is to promote the implementation of	CL#3  OK																		

\* MoV = Means of Verification, DR= Document Review, I= Interview, SV= Site Visit

			profitable LFG capture and usage to power projects in China. CL#3 was closed.	
A.2.2. Is the CME developed a framework for implementation of the proposed CDM PoA and inclusion of CPAs under the PoA?	PS Para. 138	DR	Yes. The framework for the implementation of the proposed PoA is presented as figure 1 in the section A.2 of the PoA DD.	OK
A.2.3. Is the CME described the policy/measure or stated goal that the proposed CDM PoA seeks to promote?	PS Para. 139	DR	Yes. The stated goal of the PoA is to promote the implementation of LFG capture and usage to power projects in China by offering integrated financial, engineering and CDM qservices.	OK
A.2.4. Whether a confirmation that the PoA is a voluntary action by the CME is included?	PS Para. 140	DR	Yes. The CME confirms that the proposed PoA is a voluntary action, as there is no law in the host country that forces or mandates any of the project participants to engage in any of the activities included in the PoA.	OK
A.2.5. How the PoA will reduce GHG emission or increase GHG removals? A.2.6. Does the contribution of the PoA to the sustainable development described?	PS Para. 31	DR	<p>According to para 31-32 of PS version 01, CAR#4 was raised requesting PP to clarify how the PoA will reduce GHG emission and contribute to the sustainable development, what the scenario prior to the implementation of the proposed PoA is, and which sectoral scope and type the PoA belong to. After reviewing the revised PoA DD version 3.0, it is confirmed that the requirement in the para 31-32 of PS version 01 has been correctly described. CAR#4 was closed.</p> <p>Each CPA under the PoA will reduce the greenhouse gas (GHG) emissions by destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from grid dominated by fossil fuel power plant.</p> <p>The PoA will contribute to the sustainable development in the host country, not only because of avoiding global warming, but also because it increases the availability of electricity from renewable sources. The PoA will minimize the explosion risk at the landfill site, remove the terrible odours and improve the air quality of local area by destroying LFG. In addition, the PoA will create job opportunities through the construction and operation of the LFG capture system</p>	CAR#4 OK

			and the power units.	
A.2.7. Does the scenario prior to the implementation of the proposed PoA described?	PS Para. 32	DR	The existing scenario prior to the implementation of PoA is that the huge potential of LFG use in China is released to atmosphere without utilization and the equivalent electricity is from the grid of China.	OK
<b>A.3. CMEs and participants of POA</b>				
A.3.1. Whether the project participants and CME are identified in the section A.3 of the PoA DD and that this information is consistent with the information provided in the subsequent section?	EB55 Annex 38 Para. 6 PS Para. 141 POA DD section A.3, A.4/Appendix 1	DR	Yes. The PP and CME are identified and consistent with section A.4 and Appendix1 of the PoA DD. Henan BCCY New Power Industry Co., Ltd. (BCCY) is the CME of the PoA and will communicate with the Executive Board. First Climate Markets AG is a Project Participant to the PoA.	OK
<b>A.4. Party(ies)</b>				
A.4.1. Whether the CME and party(ies) are listed in tabular form in the PoA DD and that this information is consistent with the information provided in the section that contains the contact information for project participants?	VVS Para. 46 PS Para. 141 EB55 Annex 38 Para. 6	DR	Yes. The party and CME involved in the PoA are correctly described in the tabular. And the contact information of the CME is also included in the Appendix 1 of the PoA DD.	OK
A.4.2. Whether no entities other than those authorized PPs are included in the section A.4 of the PoA DD?	VVS Para. 47	DR	Yes. No other entities other than those authorized PPs are included in the PoA.	OK
<b>A.5. Physical/ Geographical boundary of the PoA</b>				
A.5.1. Does the information provided on the location of the programme allow for a clear definition identification of the boundary for the PoA in terms of a geographical area, within which all CPAs included in this PoA will be	PS Para. 142, VVS Para. 191,192 EB55 Annex 38 Para. 6	DR	Yes. The physical/geographical boundary of the PoA is the People's Republic of China. The boundary is established complying the national and sectoral policies and regulations within China.	OK

implemented? A.5.2. Whether the project participants have taken into consideration all applicable national and/or sectoral policies and regulations within that chosen boundary in establishing the boundary of the PoA?				
<b>A.6. Technologies/measures</b>				
A.6.1. Does the proposed CDM PoA involve the alteration of existing installations or process?	VVS Para.68	DR, SV	No, prior to the implementation of PoA, the huge potential of LFG use in China is released to atmosphere without utilization and the equivalent electricity is from the grid of China.	OK
A.6.2. Is all information provided accurate, complete, and provides an understanding of the technology applied in each CPA?	VVS Para.64, 69	DR, SV	Yes. The technology provided is accurate, complete. Each CPA consists of LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid, with possible partial flaring.	OK
A.6.3. Are the sectoral scope(s) and type of the PoA correctly identified?	PS Para. 31		The sectoral scope 13: Waste handling and disposal and sectoral scope 01: Energy Industries (renewable / non-renewable sources). The type of the PoA is small scale PoA.	OK
<b>A.7. Public Funding of PoA</b>				
A.7.1. Does the information on public funding provided conform to the actual situation or planning as presented by the project participants?	PS Para. 34	DR, I	No. By checking the statement of no public fund involved issued by the implementer, the assessment team confirms there is no public funding involved in the PoA.	OK
A.7.2. Is all information provided consistent with details provided by further chapters of the POA DD (in particular appendix 2)?	PS Para. 34	DR	Yes, all information provided is consistent with details provided in the Appendix 2, indicating there's no public funding for the project.	OK
A.7.3. In case of public funding from Annex I Parties is it confirmed that such funding does not result in a diversion of official development assistance	PS Para. 34	DR	NA. There is no public funding is involved in this project.	OK

## B. Demonstration of additionality and development of eligibility criteria

### B.1. Demonstration of additionality for PoA

<p>B.1.1. Has it been demonstrated that in the absence of the CDM either:</p> <ul style="list-style-type: none"> <li>(i) the proposed voluntary coordinated action would not be implemented, or</li> <li>(ii) the mandatory policy/regulation would be systematically not enforced and that noncompliance with those requirements is widespread in the country/region, or</li> <li>(iii) that the PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation.</li> </ul>	<p>VVS Para. 195 EB 55 Annex 38 Para. 6</p>	<p>DR</p>	<p>(i) <i>Demonstration that in the absence of the CDM, CPAs would not be implemented;</i> In the absence of the CDM, which means in the absence of the CDM financial support, LFG projects would not happen, because of their low profitability. This is demonstrated by means of investment barrier, which shows that for the set of inputs of each CPA (total investment, electricity tariff, expected electricity production, O&amp;M costs, etc.), only thanks to the CDM the project IRR rises above the applicable sectoral benchmark. CPAs additionality implies PoA additionality, because, if CPAs were feasible without CDM, then the promoters of the CPAs would not need to participate in the PoA, and there would be no scope for it.</p> <p>(ii) <i>If the PoA is implementing a mandatory policy/regulation, this would/is not enforced;</i> As there are mandatory regulations to require recovery and utilization of LFG, thus the PoA is implementing a mandatory policy/regulation, but this is not enforced. For each CPA, it should demonstrate that mandatory regulations to require recovery and utilization of LFG are not enforced.</p> <p>(iii) <i>The PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation.</i> It has been demonstrated that there were less than 0.51% of landfill sites in China flaring and utilizing LFG. The PoA will lead to a greater level of enforcement of the existing mandatory policy/regulation of flaring or utilization of LFG.</p>	<p>OK</p>
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### B.2. Eligibility criteria for inclusion of a CPA in the PoA

<p>B.2.1. Is the geographical boundary of the</p>	<p>VVS Para. 196</p>	<p>DR</p>	<p>Each CPA will take place in the geographical boundary of China.</p>	<p>OK</p>
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CPA including any time-induced boundary consistent with the geographical boundary set in the PoA?	EB65 Annex 3 Para 14 (a)			
B.2.2. Has the conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations included?	VVS Para. 196 EB65 Annex 3 Para 14 (b)	DR	The CPA is not already registered as a single CDM project or part of another registered CDM PoA or identical with another CPA already included in this PoA by checking the geographical coordinates of the CPA.	OK
B.2.3. Has the specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications included?	VVS Para. 196 EB65 Annex 3 Para 14 (c)	DR	The CPA consists in the installation of a LFG capture and usage system, including electricity generation system to utilize the captured LFG and/or partial flaring.	OK
B.2.4. Has the conditions to check the start date of the CPA through documentary evidence included?	VVS Para. 196 EB65 Annex 3 Para 14 (d)	DR	The CPA start date is not before the start of the PoA GSC. The start date of CPA must be indicated as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc.	OK
B.2.5. Has the conditions ensured compliance with applicability and other requirements of single or multiple methodologies applied by CPAs included?	VVS Para. 196 EB65 Annex 3 Para 14 (e)	DR	The CPA complies with applicability and other requirements of methodologies AMS-III.G and AMS-I.D. These conditions have been included in the section "B.2. Application of methodology(ies)" of Part II.	OK
B.2.6. Has the conditions ensured that CPAs meet the requirements pertaining to the demonstration of additionality?	VVS Para. 196 EB65 Annex 3 Para 14 (f)	DR	The CPA meets the relevant requirements of Guidelines on the demonstration of additionality of small-scale project activities - Version 09.0 for the demonstration of additionality.	OK
B.2.7. Has the local stakeholder consultations and environmental impact analysis included?	VVS Para. 196 EB65 Annex 3 Para 14 (g)	DR	Local stakeholder consultation and the environmental impact analysis (or equivalent environmental assessment, as per national regulations) will be completed.	OK
B.2.8. Has an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development	VVS Para. 196 EB65 Annex 3 Para 14	DR	An affirmation that CPA under the PoA does not receive any public funding from Parties included in Annex I, or that in case such public funding is involved, it dose not result in diversion of Official	OK

assistance provided?	(h)		Development Assistance (ODA) will be provided.	
B.2.9. Where applicable, is the target group and distribution mechanisms described?	VVS Para. 196 EB65 Annex 3 Para 14 (i)	DR	CL#5 was raised requesting to clarify whether electricity is exported to consumer directly or via the grid. In the revised PDD version 3.0, the CPA exports electricity to the grid or to identified consumer via grid which would buy electricity from the grid, for which it is possible to determine the CO <sub>2</sub> emission factor per unit of electricity distributed (tCO <sub>2</sub> e/MWh). If this is not possible, no emission reduction can be claimed for the electricity displacement (but only for the methane emission avoidance part). CL#5 was closed.	CL#5 OK
B.2.10. Where applicable, are the sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys included?	VVS Para. 196 EB65 Annex 3 Para 14 (j)	DR	NA. CL#6 was raised requesting to clarify why sampling requirements are not applicable. In the revised PoA DD version 3.0, each CPA under the PoA will utilize monitoring rather than sampling for the determination of parameter values for calculating emission reductions. CL#6 was closed.	CL#6 OK
B.2.11. Where applicable, does every CPA in aggregate meet the small-scale or microscale threshold criteria and remain within those thresholds throughout the crediting period of the CPA?	VVS Para. 151, 152, 196 EB65 Annex 3 Para 14 (k)	DR	The PoA adopts the combination of AMS-I.D and AMS-III.G., the CPA will meet the thresholds of a maximum output of 15MW for type I and emission reduction not exceeding 60kt CO <sub>2</sub> e per year for type III throughout the crediting period of the CPA.	OK
B.2.12. Where applicable, are the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories included?	VVS Para. 155, 156, 196 EB54 Annex 13 EB65 Annex 3 Para 14 (l)	DR	The CPA will not be a debundled component of a large project activity by checking the latest version of <i>"Guidelines on assessment of debundling for SSC project activities"</i> .	OK
B.2.13. Whether the criteria are verifiable, sufficiently objective, and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?	EB65 Annex 3 Para 15, 16	DR	Yes. Each criteria is verifiable, sufficiently objective, and comprehensive to permit the assessment of the inclusion of CPAs in the PoA	OK
<b>B.3. Application of methodologies</b>				
B.3.1. Does the PoA-DD describe the technology/measures implemented	PS Para. 151, 152	DR	Yes. Each CPA consists of LFG collection, transmission and pre-treatment system, with subsequent electricity generation and	OK

and the methodology applied?			delivery to the grid, with possible partial flaring.	
B.3.2. In cases where multiple technologies/measures or multiple methodologies are being applied, does all the combinations of technologies/measures and methodologies applied listed?	EB65 Annex 3 Para. 26	DR	According to the PoA, each CPA will utilize LFG to generate electricity and deliver the electricity to the grid. Please clarify why “#1 only LFG capture and flaring” in the section B.3 of part I is the possible combinations of technologies/measures and methodologies. In the revised PDD version 3.0, the technology applied in the combined methodologies is LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid, with possible partial flaring. And the only combined methodology is AMS-III.G. and AMS-I.D. CAR#7 was closed.	CAR#7 OK
B.3.3. If applicable, provide a description of the sampling plan and demonstrate how it meets applicable provisions in the “Standard for sampling and surveys for CDM project activities and programme of activities”	EB65 Annex 3 Para. 27	DR	NA. Each CPA under the PoA will utilize monitoring rather than sampling for the determination of parameter values for calculating emission reductions.	OK
<b>C. Management system</b>				
C.1.1. Is the CME developed and implemented a management system that includes the following items: (a) A clear definition of roles and responsibilities of personnel involved in the process of inclusion of CPAs, including a review of their competencies; (b) Records of arrangements for training and capacity development for personnel; (c) Procedures for technical review of inclusion of CPAs; (d) A procedure to avoid double counting (e.g. to avoid the case of	PS Para. 145 EB55 Annex 38 Para. 6 EB65 Annex 3 Para. 17	DR	CAR#8 was raised requesting to clarify whether a management system is developed as per para 17 of annex 3 EB65, such as definition of roles and responsibilities of personnel involved, records and documentation control process for each CPA under the PoA, measures for continuous improvements of PoA management system. In the revised PDD version 3.0, the management system has been clearly described:  (a) Roles and responsibilities of personnel are clearly defined:  PoA Manager is the leader of CDM department of CME. He/She is responsible for overall issues of PoA and training to ensure that staff of CME and CPA implementers has the ability to deal with the tasks relating to CDM issue.  Assistant(s) of PoA Manager is the staff(s) from CME whose's	CAR#8 OK

<p>including a new CPA that has already been registered either as a CDM project activity or as a CPA of another PoA); (e) Records and documentation control process for each CPA under the PoA; (f) Measures for continuous improvements of the PoA management system; (g) Any other relevant elements.</p>		<p>responsibilities are:</p> <ul style="list-style-type: none"> <li>▪ collecting and archiving data and documents of CPA;</li> <li>▪ preparing monitoring report;</li> <li>▪ including CPA into PoA</li> </ul> <p>CDM manager of each CPA is the staff from CPA implementer. He/She is specifically responsible for training, checking the daily operation, reporting forms and archiving emergency situation reports.</p> <p>(b) Procedure for training and capacity development</p> <p>CME staff who is responsible for the PoA will receive training to develop its competence in managing the PoA. The CME will arrange regular training for the CPA owners.</p> <p>(c) Procedure for technical review of inclusion of CPAs</p> <p>A checklist of eligibility criteria will be formulated after the registration of PoA and updated from time to time to ensure that each CPA meets all requirements for inclusion in the registered PoA. Supporting documents will be provided to CME to check whether the eligibility criteria has been satisfied.</p> <p>(d) Procedure to avoid double counting</p> <p>Each CPA consists of a LFG capture and usage plant, for which a geographical location and coordinates are provided in the CPA-DD.</p> <p>In the CPA addition phase, it will be possible to check that the new CPA has not already been added into the PoA or any other PoA, nor it is an already registered CDM project activity.</p> <p>(e) Procedure for record and documentation control process</p> <p>Each CPA will be managed by dedicated staff, with an internal organization that will ensure smooth operation of the LFG capture and usage plant, from the technical and administrative point of view.</p>	
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			<p>The CME will ensure that a homogenous reporting practice is adopted in all CPAs and will collect centrally all the data needed for the emission reductions calculation.</p> <p>(f) Measure for continual improvements of the PoA management</p> <p>Every year, the PoA management will summarize the work of the PoA and share the experience in the CDM department and update the management system, if possible. The external expert of CDM will be consulted regularly for the management of PoA.</p> <p>(g) Provisions to ensure CPAs awareness of inclusion in the PoA</p> <p>Participation of the CPAs into the PoA will be regulated by a specific statement by the CPA owner, which agrees the CPA to be included in the PoA and agrees Henan BCCY New Power Industry Co., Ltd. as the CME. Therefore, at the moment of the CPA owner issues such statement, it will be aware and consent to include its CPA into the PoA.</p> <p>CAR#8 was closed.</p>	
<b>D. During of PoA</b>				
<b>D.1. Start date of PoA</b>				
D.1.1. How the start date of the PoA has been determined?	<p>PS Para. 158</p> <p>EB55 Annex 38 Para. 6</p> <p>Glossary of CDM Term (version 06.0)</p>	DR	<p>The start date of PoA in section D.1 of part I is determined as GSC date of the PoA while 28/12/2011 is not the GSC date. CAR#15 was raised. By reviewing the revised PDD version 3.0, the correct start date of the PoA is 24/01/2012, which is the first GSC date of PoA DD.</p> <p>It is in compliance with the definition of start date in the Glossary of CDM Term version 06. CAR#15 was closed.</p>	<p><del>CAR#15</del></p> <p>OK</p>
D.1.2. Is the start date of any CPA not prior to the commencement of the validation of the PoA, which is the date the CDM-PoA-DD is first	<p>VVS Para 193</p> <p>PS Para. 160</p>	DR	<p>In the Eligibility criteria #4 of the PoA, the CPA start date is not before the start of the PoA GSC..</p>	OK

published for global stakeholder consultation?				
<b>D.2. Length of PoA</b>				
D.2.1. whether the length of a PoA does not exceed 28 years (60 years for A/R)?	VVS Para 58, 197 PS Para. 158 EB55 Annex 38 Para. 6	DR	The length of the PoA is 28 years.	OK
<b>E. Environmental Impacts</b>				
<b>E.1. Level at which environmental analysis is undertaken</b>				
E.1.1. Is the environmental analysis done at PoA level or CPA level?	PS Para. 165	DR	The environmental analysis is done at CPA level.	OK
E.1.2. Does the project comply with environmental legislation in the host country?	VVS Para. 135, 136 PS Para. 64	DR	According to the <i>Law of Environmental Impact Assessment</i> in China, each LFG capture and usage plant has to be specifically authorized, with regard to its environmental compliance, by the competent Environmental Bureau.	OK
<b>E.2. Analysis of the environmental impacts</b>				
E.2.1. Has an analysis of the environmental impacts of the PoA been sufficiently described?	VVS. Para. 134, 200 PS Para. 63	DR	NA. The environmental analysis is done at CPA level.	OK
E.2.2. Will the project create any adverse environmental effects?	VVS. Para. 134	DR,I ,SV	NA. The environmental analysis is done at CPA level.	OK
E.2.3. Are trans-boundary environmental impacts considered in the analysis?	PS Para. 63	DR,I	NA. The environmental analysis is done at CPA level.	OK
<b>F. Local stakeholder comments</b>				
<b>F.1. Solicitation of comments from local stakeholders</b>				
F.1.1. Is the local stakeholder consultation done at PoA level or CPA level?	PS Para. 166	DR,I	CAR#9 was raised requesting to clarify whether the local stakeholder consultation is performed at the PoA level or CPA level	CAR#9



	VVS Para. 201		because of inconsistency in section F of PoA DD version 2.0. And please justify the choice of level at which the local stakeholder consultation is undertaken.  The local stakeholder consultation will be performed at the CPA level and consistency are kept in the PoA DD version 3.0. The local stakeholder consultations at CPA level are more suitable for local resident to express their opinions and have a more specific understanding of the details of the project and related impact. CAR#9 was closed.	OK
F.1.2. If PoA level, have appropriate procedure been used to invite comments by local stakeholders?	VVS Para. 138, 201 PS. Para. 66	DR	NA. The local stakeholder consultant process is performed at CPA level.	OK
<b>F.2. Summary of comments received</b>				
F.2.1. If PoA Level, is the undertaken stakeholder process described in a complete and transparent manner?	VVS Para. 139	DR	NA. The local stakeholder consultant process is performed at CPA level.	OK
F.2.2. If PoA Level, is a summary of the stakeholder comments received provided?	PS Para. 67	DR	NA. The local stakeholder consultant process is performed at CPA level.	OK
<b>F.3. Report on consideration of comments received</b>				
F.3.1. If PoA Level, has due account been taken of any stakeholder comments received?	PS Para. 68 VVS Para. 139	DR	NA. The local stakeholder consultant process is performed at CPA level.	OK
<b>G. Approval and authorization</b>				
G.1.1. Are the participation for each project participant has been authorized by a Party to the Kyoto Protocol and the CME by each of the host Parties involved?	PS Para. 171-172	DR	Yes. PP and CME are authorized.	OK

**Table 3 – Part II. Generic component project activity (CPA)**

Checklist Question	Reference Criteria	MoV*	SGS Assessment	Conclusion/ CARs/CLs
<b>A. General description of a generic CPA</b>				
<b>A.1. Purpose and general description of generic CPAs</b>				
A.1.1. Does the generic CPA-DD provide a description of each generic CPA under the PoA?	PS Para. 143	DR	Yes. Each CPA under PoA aims at recovering LFG from an identified landfill site to generate electricity and possibly flare part of it. Each CPA consists of LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid, with possible partial flaring.	OK
<b>B. Application of a baseline and monitoring methodology</b>				
<b>B.1. Reference of the approved baseline and monitoring methodology(ies) selected</b>				
B.1.1. Does the generic CPA-DD contain the reference number, title and version of the applied methodology(ies) including tools, standards and/or guidelines required by the methodology(ies), valid at the time of submission?	PS Para. 37 VVS Para. 70, 71, 74	DR	Yes. The methodologies are correctly quoted and applied in the PoA. <b>Applied methodology:</b> AMS-III.G: Landfill Methane Recovery - Version 7.0 AMS-I.D: Grid connected renewable electricity generation - Version 17.0 <b>Cited tools:</b> <ul style="list-style-type: none"> <li>AMS-III.H: Methane recovery in wastewater treatment” – version 16.0</li> <li>Methodological tool “Emission from solid waste disposal sites” – Version 06.0.1</li> <li>Tool to determine project emissions from flaring gases containing methane – Version 01</li> <li>Tool to calculate the emission factor for an electricity</li> </ul>	OK

			<div>system - Version 02.2.1</div> <ul style="list-style-type: none"><li>Guidelines on the demonstration of additionality of small-scale project activities -Version 09.0</li><li>Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities - Version 01.0</li></ul>							
B.2. Application of methodology(ies)										
B.2.1. If the PoA DD of a proposed project activity is based on a previous version of a methodology and was published for global stakeholder consultation but was not submitted for registration within the grace period, whether a revised PoA DD is provided?	VVS Para. 75	DR	AMS-III.G version 7.0 is valid for RFR until 28/05/2013; AMS-I.D version 17.0 is the latest version. Both methodologies are used in the 2 <sup>nd</sup> GSC.	OK						
B.2.2. Whether the project activity meets each of the applicability conditions of the approved methodology or any tool or other methodology component referred to therein and in accordance with the PoA?	PS Para. 38 VVS Para. 76, 77	DR	<div>Yes. The applicability conditions of the applied methodologies AMS-III.G and referred AMS-III.H are justified as below:</div> <table><tr><th>Applicability conditions for AMS-III.G</th><th>Check</th></tr><tr><td>1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.</td><td>The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.</td></tr><tr><td>2. Different options to reenfi the</td><td>The recovered methane</td></tr></table>	Applicability conditions for AMS-III.G	Check	1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.	The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.	2. Different options to reenfi the	The recovered methane	OK
Applicability conditions for AMS-III.G	Check									
1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.	The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.									
2. Different options to reenfi the	The recovered methane									

			<p>recovered landfill gas as detailed in paragraph 3 of AMS-III.H "Methane recovery in wastewater treatment" (version 16) are eligible for use under this methodology. The relevant procedures in AMS-III.H shall be followed in this regard.</p> <p>The recovered methane from the above measures may also be utilized for the following applications instead of flaring or combustion:</p> <ul style="list-style-type: none"> <li>(a) Thermal or mechanical, electrical energy generation directly;</li> <li>(b) Thermal or mechanical, electrical energy generation after bottling of upgraded biogas, in this case additional guidance provided in Annex I shall be followed; or</li> <li>(c) Thermal or mechanical, electrical energy generation after upgrading and distribution, in this case additional guidance provided in Annex I shall be followed: <ul style="list-style-type: none"> <li>i. Upgrading and injection of biogas into a natural gas distribution grid with no significant transmission constraints;</li> <li>ii. Upgrading and transportation of biogas via a dedicated piped network to a group of end users; or</li> <li>iii. Upgrading and transportation of biogas</li> </ul> </li> </ul>	<p>is utilized for electrical generation directly (i.e. by gas engines included in the project boundary) – option (a). Therefore it is satisfied with the application (a).</p>	
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			<p>(e.g. by trucks) to distribution points for end users.</p> <p>(d) Hydrogen production.</p> <p>(e) Use as fuel in transportation applications after upgrading.</p>							
			<p>3. According to paragraph 3 of AMS-III.H. "If the recovered biogas methane is used for project activities covered under paragraph 2 (a), that component of the project activity shall use a corresponding category under type I.</p>	<p>The CPA uses methodology AMS-I.D. for the power generation component. Therefore this condition is fulfilled.</p>						
			<p>4. Measures are limited to those that result in aggregate emission reductions of less than or equal to 60 kt CO2 equivalent annually from all type III components of the project activity.</p>	<p>The CPA results in aggregate emission reduction of less than 60 kt CO2 equivalent annually from all type III components. Therefore this condition is fulfilled.</p>						
			<p>The applicability conditions of the applied methodologies AMS-I.D are justified as below:</p>							
			<table><tr><th><i>Applicability conditions for AMS-I.D</i></th><th><i>Check</i></th></tr><tr><td><p>1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p><p>(a) supplying electricity to a national or a regional grid;</p><p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling</p></td><td><p>The CPA generates electricity from a renewable biomass (biogas) and supplies it to corresponding regional grid. Therefore this condition is fulfilled.</p></td></tr><tr><td><p>2. Illustration of situations under the methodology AMS-I.D as follows:</p></td><td><p>The CPA plans to supply electricity to</p></td></tr></table>	<i>Applicability conditions for AMS-I.D</i>	<i>Check</i>	<p>1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>(a) supplying electricity to a national or a regional grid;</p> <p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling</p>	<p>The CPA generates electricity from a renewable biomass (biogas) and supplies it to corresponding regional grid. Therefore this condition is fulfilled.</p>	<p>2. Illustration of situations under the methodology AMS-I.D as follows:</p>	<p>The CPA plans to supply electricity to</p>	
<i>Applicability conditions for AMS-I.D</i>	<i>Check</i>									
<p>1. This methodology comprises renewable energy generation units, such as photovoltaic, hydro, tidal/wave, wind, geothermal and renewable biomass:</p> <p>(a) supplying electricity to a national or a regional grid;</p> <p>(b) Supplying electricity to an identified consumer facility via national/regional grid through a contractual arrangement such as wheeling</p>	<p>The CPA generates electricity from a renewable biomass (biogas) and supplies it to corresponding regional grid. Therefore this condition is fulfilled.</p>									
<p>2. Illustration of situations under the methodology AMS-I.D as follows:</p>	<p>The CPA plans to supply electricity to</p>									

			<ul style="list-style-type: none"> <li>Project supplies electricity to a national/regional grid;</li> <li>Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)</li> </ul>	corresponding regional grid. Therefore this condition is fulfilled.	
			<p>3. This methodology is applicable to project activities that (a) install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) involve a capacity addition<sup>1</sup>; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).</p>	The CPA installs a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the CPA (Greenfield plant). Therefore this condition of (a) is fulfilled.	
			<p>4. Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology:</p> <ul style="list-style-type: none"> <li>The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</li> <li>The project activity is implemented in an existing reservoir (A reservoir is to be considered as an “existing reservoir” if it has been in operation for at least three years before the implementation of the</li> </ul>	Not applicable (the CPA is not a hydro power plant).	



			<p>project activity.), where the volume of reservoir is increased and the power density of the project activity, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>;</p> <ul style="list-style-type: none"> <li>The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.</li> </ul>		
			<p>5. If the new unit has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	Not applicable (the CPA does not use non-renewable components nor co-fires fossil fuels).	
			<p>6. Combined heat and power (co-generation) systems are not eligible under this category</p>	The CPA does not co-generate heat and power (only power). Therefore this condition is fulfilled.	
			<p>7. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15</p>	Not applicable (the CPA does not involve addition of renewable energy generation units at an existing renewable power generation facility).	

			MW and should be physically distinct6 from the existing units.			
			8. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.	Not applicable (the CPA project is not a retrofit or replacement)		
			Besides, the applicability conditions of applied tools were also validated as below:			
			Emission from solid waste disposal sites” – Version 06.0.1			
			<b>Applicability conditions</b>	<b>Check</b>		
			<b>Application A:</b> The CDM project activity mitigates methane emissions from a specific existing SWDS. Methane emissions are mitigated by capturing and flaring or combusting the methane (e.g. ACM0001).The methane is generated from waste disposed in the past, including prior to the start of the CDM project activity. In these cases, the tool is only applied for an ex-ante estimation of emissions in the CDM-PDD. The emissions will then be monitored during the crediting period using the applicable approaches in the relevant methodologies (e.g. measuring the amount of methane captured from the SWDS);	The CPA mitigates methane emissions from a specific existing SWDS. This is fulfilled.		
			<b>Application B:</b> The CDM project activity avoids or involves the disposal of waste at a SWDS. An example of this application of the tool is AM0025, in which MSW is treated with an alternative option, such as composting or anaerobic	NA		

			<p>digestion, and is then prevented from being disposed of in a SWDS. The methane is generated from waste disposed or avoided from disposal during the crediting period. In these cases, the tool can be applied for both ex-ante and ex-post estimation of emissions.</p>								
			<p>Tool to determine project emissions from flaring gases containing methane – Version 01</p>								
			<table><tr><th><i><b>Applicability conditions</b></i></th><th><i><b>Check</b></i></th></tr><tr><td>1. The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen;</td><td>NA</td></tr><tr><td>2. The residual gas stream to be flared shall be obtained from decomposition of organic material (through landfills, bio-digesters or anaerobic lagoons, among others) or from gases vented in coal mines (coal mine methane and coal bed methane).</td><td>The residual gas stream to be flared is obtained from decomposition of organic material through landfills. This is fulfilled.</td></tr></table>	<i><b>Applicability conditions</b></i>	<i><b>Check</b></i>	1. The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen;	NA	2. The residual gas stream to be flared shall be obtained from decomposition of organic material (through landfills, bio-digesters or anaerobic lagoons, among others) or from gases vented in coal mines (coal mine methane and coal bed methane).	The residual gas stream to be flared is obtained from decomposition of organic material through landfills. This is fulfilled.		
<i><b>Applicability conditions</b></i>	<i><b>Check</b></i>										
1. The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen;	NA										
2. The residual gas stream to be flared shall be obtained from decomposition of organic material (through landfills, bio-digesters or anaerobic lagoons, among others) or from gases vented in coal mines (coal mine methane and coal bed methane).	The residual gas stream to be flared is obtained from decomposition of organic material through landfills. This is fulfilled.										
			<p>Tool to calculate the emission factor for an electricity system – Version 02.2.1</p>								
			<table><tr><th><i><b>Applicability conditions</b></i></th><th><i><b>Check</b></i></th></tr><tr><td>1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).</td><td>The electricity generated by the CPA will be supplied to grid that results in savings of electricity that would have been provided by the grid. Thus, this is fulfilled.</td></tr><tr><td>2. In case of CDM projects the tool is not applicable if the project electricity</td><td>The electricity generated by the CPA</td></tr></table>	<i><b>Applicability conditions</b></i>	<i><b>Check</b></i>	1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The electricity generated by the CPA will be supplied to grid that results in savings of electricity that would have been provided by the grid. Thus, this is fulfilled.	2. In case of CDM projects the tool is not applicable if the project electricity	The electricity generated by the CPA		
<i><b>Applicability conditions</b></i>	<i><b>Check</b></i>										
1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The electricity generated by the CPA will be supplied to grid that results in savings of electricity that would have been provided by the grid. Thus, this is fulfilled.										
2. In case of CDM projects the tool is not applicable if the project electricity	The electricity generated by the CPA										

			system is located partially or totally in an Annex I country.	will be supplied to grid within China instead of Annex I country.	
B.2.3. If combinations of technologies/measures and/or methodologies for a PoA are eligible, whether no cross effects between the technologies/measures applied has been demonstrated?	EB65 Annex 3 Para. 28, 29	DR	Yes. The combination of AMS-III.G and AMS-I.D is eligible. According to “General guidelines for SSC CDM methodologies – ver 18” (EB66 Annex23), no further assessment of cross effects are needed for the combination of AMS-III.G and AMS-I.D.		OK
B.2.4. If large scale CDM methodologies combined, whether a pre-approval is required?	EB65 Annex 3 Para. 32	DR	NA. Small-scale methodologies are combined.		OK
B.2.5. In case of a combination of multiple large scale and small-scale CDM methodologies in a PoA, whether a pre-approval is required?	EB65 Annex 3 Para. 33	DR	NA. Small-scale methodologies are combined.		OK
B.3. Sources and GHGs					
B.3.1. Does the boundary of the generic CPA, including the physical delineation of the project activity, and which sources and GHGs are included in the CPA boundary, in accordance with the selected methodology(ies)?	PS Para. 39	DR	The boundary of each CPA includes the site where the LFG is captured and, as applicable: <ul style="list-style-type: none"><li>• Sites where the LFG is flared or used (e.g. flare, power plant);</li><li>• Captive power plant(s) or power generation sources connected to the grid, which are supplying electricity to each CPA;</li><li>• Captive power plant(s) or power generation sources connected to the grid, which are supplying electricity in the baseline that is displaced by electricity generated by each CPA.</li></ul> And each CPA boundary is within the geographical boundary of China which is the boundary of the PoA.		OK

B.3.2. In cases where the selected methodology(ies) allows project participants to choose, whether a source or gas is to be included in the project or CPA boundary, project participants is explained and justified?	PS Para. 40 VVS Para. 84, 86	DR	<p>All emission sources and gases within the CPA boundary are clearly identified and described in a complete manner as per the requirement of the methodologies applied. CO<sub>2</sub> and CH<sub>4</sub> are the main emission source and included in the baseline emission and project emission.</p> <p>CAR#13 was raised requesting to indicate in the diagram the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored according to annex 13 EB66. The emissions sources of CH<sub>4</sub> and CO<sub>2</sub> has been correctly included in the diagram of project boundary and the monitoring parameter has been correctly included in the diagram of monitoring system in the PoA DD version 3.0. CAR#13 was closed.</p>	CAR#13 OK
B.3.3. Is there any GHG emissions occurring within the project boundary as a result of the implementation of the proposed project which are expected to contribute more than 1% of the overall expected average annual Ers, which are not addressed by the applied methodology.	VVS Para 87	DR, SV	All greenhouse gas emissions occurring within the CPA boundary as a result of the implementation of the CPA were included by the methodology. There are no emissions which are expected to contribute more than 1% of the overall expected average annual emissions reductions which are not addressed by the applied methodologies.	OK
<b>B.4. Description of baseline scenario</b>				
<p>B.4.1. Are all potential realistic and credible alternative scenarios listed in the methodology considered in identification of the most reasonable baseline scenario?</p> <p>B.4.2. Does the generic CPA DD follow the steps to determine the baseline scenario required by the methodology/tool and has the</p>	VVS Para. 89, 90, 115 PS Para. 41, 42	DR	<p>According to the Para. 115 VVS version 03.0, the baseline scenario is prescribed in the approved methodologies, no further analysis is required.</p> <p><b><u>According to AMS-III.G:</u></b></p> <p><i>"The baseline scenario is the situation where, in the absence of the project activity, biomass and other organic matter are left to decay within the project boundary and methane is emitted to the atmosphere. Baseline emissions shall exclude methane emissions that would have to be removed to comply</i></p>	OK

application of the tools as per methodology been consulted, if the tool(s) are required by the methodology?			<p><i>with national or local safety requirement or legal regulations"</i></p> <p><b><u>According to AMS-I.D:</u></b></p> <p><i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid".</i></p>	
B.4.3. Whether the most plausible baseline scenario identified is reasonable and the description is verifiable?	VVS Para. 91, 94, 95	DR	<p><b><u>For type III:</u></b></p> <p>CL#10 was raised requesting PP to clarify how the 0.45% of landfill sites (excluding the landfill sites related with CDM projects) flaring and utilizing LFG in China in PoA DD version 2.0 is determined. By validating the "China Development Report on Urban Domestic Refuse Disposal Industry 2010", the CDM pipeline issued by 01/11/2011, and published information from website, it is confirmed that the correct one is 0.51% instead of 0.45%. Correction has been done in the PoA DD version 3.0. CL#10 was closed.</p> <p>It is confirmed that uncontrolled emission of methane to the atmosphere without any recovery is the most plausible baseline scenario by reviewing <i>Promoting Methane Recovery and Utilization from Mixed Municipal Refuse in China, Terminal Evaluation Report dated 12/2005, Circular on the Outcome of Nationwide Inspection on Hazard-free Treatment of Domestic Waste Landfill Sites dated 02/2007, China Development Report on Urban Domestic Refuse Disposal Industry 2010</i>, the CDM pipeline, and published available website.</p> <p><b><u>For type I:</u></b></p> <p>The CPA is a new grid-connected renewable power unit, therefore the baseline is the electricity would be provided by the grid.</p>	<p><del>CL#10</del> OK</p>
B.4.4. Is there a verifiable description of the baseline scenario? Does	VVS Para. 92	DR	<p>Yes. In the absence of the CPA, the LFG will be released into the atmosphere without any recovery and the electricity will</p>	OK



this include a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM PoA?	PS Para. 46		be provided from the grid.	
B.4.5. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario, including relevant national and/or sectoral policies and circumstances?	VVS Para. 93 PS Para. 43-45	DR	NA. The baseline scenario is determined by the methodologies applied: AMS-III.G and AMS-I.D.	OK
<b>B.5. Demonstration of eligibility for a generic CPA</b>				
B.5.1. Is the geographical boundary of the CPA including any time-induced boundary consistent with the geographical boundary set in the PoA?	VVS Para. 196 EB65 Annex 3 Para 14 (a)	DR	The geographical coordinates of the CPA should be within China.	OK
B.5.2. Has the conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations included?	VVS Para. 196 EB65 Annex 3 Para 14 (b)	DR	CAR#11 was raised requesting to clarify how a CPA already included in this PoA will be not included in this PoA again. By reviewing the revised PoA DD version 3.0, it is confirmed that a CPA is not identical with another CPA already included in this PoA by checking the geographical coordinates. CAR#11 was closed.  Besides, the CME will also ensure that the CPA is not already registered as a CDM project activity or is included in another registered PoA by checking geographical coordinates.	<del>CAR#11</del> OK
B.5.3. Has the specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications included?	VVS Para. 196 EB65 Annex 3 Para 14 I	DR	The CPA consists in the installation of a LFG capture and usage system, including electricity generation system to utilize the captured LFG and/or partial flaring. And the Feasibility Study Report (FSR) of the CPA should support such description.	OK

B.5.4. Has the conditions to check the start date of the CPA through documentary evidence included?	VVS Para. 196 EB65 Annex 3 Para 14 (d)	DR	CL#12 was raised requesting to clarify which document is used for determining the start date. It has been clearly reported in the PoA DD version 3.0 that the start date is defined as the earliest date of real action, such as the main equipment purchase contract, construction contract and construction start report, etc. instead of just list these documents in PoA DD version 2.0. CL#12 was closed.	CL#12 OK
B.5.5. Has the conditions ensured compliance with applicability and other requirements of single or multiple methodologies applied by CPAs included?	VVS Para. 196 EB65 Annex 3 Para 14 (e)	DR	The applicability and other requirements of methodologies AMS-III.G and AMS-I.D. shall be demonstrated by the CPA.	OK
B.5.6. Has the conditions ensured that CPAs meet the requirements pertaining to the demonstration of additionality?	VVS Para. 196 EB65 Annex 3 Para 14 (f)	DR	<p>FSR is the basis for investment barrier analysis.</p> <p>(i) <i>Demonstration that in the absence of the CDM, CPAs would not be implemented;</i></p> <p>In the absence of the PoA, which means in the absence of the CDM financial support, LFG projects would not happen, because of their low profitability. This is demonstrated by means of an investment analysis, which shows that for the set of inputs of each CPA (total investment, electricity tariff, expected electricity production, O&amp;M costs, etc.), without the CDM revenue, the project IRR would be below the applicable benchmark and therefore not viable. Only thanks to the PoA, which significantly increases the project IRR, such projects become viable.</p> <p>CPAs additionality implies PoA additionality, because, if CPAs were feasible without CDM, then the implementer of the CPAs would not need to participate in the PoA, and there would be no scope for it.</p> <p>CME shall demonstrate that the CDM was seriously considered in the decision to implement the CPA according to “Clean Development Mechanism Project Standard”.</p> <p>Assessment and demonstration of additionality is carried out</p>	OK

			<p>through the following steps: Step 1: Select applicable benchmark Step 2: Calculate the post-tax project IRR with and without CDM revenue using reasonable inputs Step 3: Conduct sensitivity analysis Step 4: Summarize conclusions</p> <p>(ii) <i>If the PoA is implementing a mandatory policy/regulation, this would/is not enforced;</i></p> <p>As the description of baseline scenario of B.4, LFG capture and usage is not enforced in China.</p>	
B.5.7. Has the local stakeholder consultations and environmental impact analysis included?	VVS Para. 196 EB65 Annex 3 Para 14 (g)	DR	The local stakeholder consultation and environmental impact analysis for the CPA shall be available. Minutes of the meeting, attendant list and Environmental Impact Assessment compiled by qualified entity shall be available for check.	OK
B.5.8. Has an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance provided?	VVS Para. 196 EB65 Annex 3 Para 14 (h)	DR	Such affirmation shall be included.	OK
B.5.9. Where applicable, is the target group and distribution mechanisms described?	VVS Para. 196 EB65 Annex 3 Para 14 (i)	DR	It shall clear indicate that the electricity generated by the CPA is delivered to the grid or to identified consumer via grid which would have bought electricity from the grid. The electricity purchase agreement or other support evidence shall be available for check.	OK
B.5.10. Where applicable, is the sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and	VVS Para. 196 EB65 Annex 3 Para 14 (j)	DR	NA. No sampling is needed.	OK

surveys included?				
B.5.11. Where applicable, does every CPA in aggregate meet the small-scale or microscale threshold criteria and remain within those thresholds throughout the crediting period of the CPA?	VVS Para. 151, 152, 196 EB65 Annex 3 Para 14 (k)	DR	The total capacity in CPA-DD shall be no more than 15MW and the estimated emission reduction shall not exceed 60kt CO2e per year for the component of AMS-III.G.  The technical section of the generator purchase agreement and the Emission Reduction Calculation Spreadsheet will be used for checking.	OK
B.5.12. Where applicable, are the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories included?	VVS Para. 155, 156, 196 EB54 Annex 13 EB65 Annex 3 Para 14 (l)	DR	It will be demonstrated that the CPA is not be a debundled component of a large project activity, according to "Guidelines on Assessment of Debundling for SSC Project Activities".	OK
B.5.13. Whether the criteria are verifiable, sufficiently objective, and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?	EB65 Annex 3 Para 15, 16	DR	Yes. All criteria are verifiable, sufficiently objective, and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.	OK
<b>B.6. Estimation of emission reductions of a generic CPA</b>				
<b>B.6.1. Explanation of methodological choices</b>				

<p>B.6.1.1. Are the steps and equations applied to calculate baseline emissions in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p> <p>Yes. Each step and equation applied for BE<sub>y</sub> are correct and replicable.</p> <p>The AMS-III.G and AMS-I.D has been correctly applied to determine the baseline emission.</p> <p>For AMS-III.G, <math>BE_{y,1} = BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4}</math></p> <p>According to the Feasibility Study Report, it is estimated that not all potential methane emissions of a solid waste disposal site (<math>BE_{CH4,SWDS,y}</math>) can be captured from the landfill, but just a portion can be captured and utilised by the project.</p> <p><math>BE_{y,1} = p_{captured} \cdot BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4}</math></p> <p>And <math>BE_{CH4,SWDS,y}</math> is calculated as the tool “Emissions from solid waste disposal sites”. And the CPA belong to “Application A: The CDM project activity mitigates methane emissions from a specific existing SWDS”.</p> <p><math>BE_{CH4,SWDS,y} = \varphi_y (1 - f_y) \cdot GWP_{CH4} \cdot (1 - OX) \cdot \frac{16}{12} \cdot F \cdot DOC_{f,y} \cdot M</math></p> <p><math>\cdot \sum_{x=1}^y \sum_j W_{j,x} \cdot DOC_j \cdot e^{-kj(y-x)} (1 - e^{-kj})</math></p> <p>For AMS-I.D, <math>BE_{y,2} = EG_{BL,y} \cdot EF_{CO2,grid,y}</math></p> <p>And the emission factor (<math>EF_{CO2,grid,y}</math>) is correctly calculated according to the procedures prescribed in “Tool to calculate the emission factor for an electricity system”.</p> <p><u>STEP 1. Identify the relevant electricity systems</u></p> <p>The power generated by the project displaces the equivalent electricity generated by the CCPG, which is the project electricity system. The CCPG is a large regional grid, which covers Henan province, Hubei province, Hunan province,</p>	<p>OK</p>
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		<p>Jiangxi province, Sichuan province, and Chongqing city. Also, CCPG connects and imports electricity from other two regional grids, North West Power Grid and the North China Power Grid which is defined as the connected electricity system.</p> <p><u>STEP 2. Choose whether to include off-grid power plants in the project electricity system (optional).</u></p> <p>Based on the actual situation of China, the Option I has been chosen for the calculation because the option II aims to reflect that in some countries off-grid power generation.</p> <p><u>STEP 3. Select a method to determine the operating margin (OM)</u></p> <p>In the recent five years from 2005 to 2009 (data available), in the composition of gross annual generation power for the CCPG, the ratio of power generated by hydro-power and other low cost/must run resources is as following: 38.18% in 2005, 35.26% in 2006, 35.47% in 2007 39.30% in 2008 and 37.63% in 2009 obviously far lower than 50%. Thus, simple OM is appropriate to be used for calculated OM.</p> <p><u>STEP 4. Calculate the operating margin emission factor according to the selected method</u></p> <p><i>Option B – Calculation based on total fuel consumption and electricity generation of the system</i> is chosen, thus, the simple OM emission factor is calculated based on the net electricity supplied to the grid by all power plants serving the system, not including low-cost/must-run power plants/units, and based on the fuel type(s) and total fuel consumption of the project electricity system, as follows:</p> $EF_{grid,OMsimple,y} = \frac{\sum_i (FC_{i,y} \times NCV_{i,y} \times EF_{CO_2,i,y})}{EG_y}$ <p><u>STEP 5. Calculate the build margin (BM) emission factor</u></p>	
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		<p>In China it is very difficult to obtain the data of the five existing power plants built most recently or the power plants capacity additions in the electricity system that comprise 20% of the system generation (in MWh) and that were built most recently. The following deviation was adopted to calculate the Build Margin emission factor:</p> <p>1) Capacity addition over 1-3 years, whichever results in a capacity addition that is closest to 20% of total installed capacity.</p> <p>2) Use proportional weights that correlate to the distribution of installed capacity in place during the selected period above, using plant efficiencies and emission factors of commercially available best technology in the national grid of China.</p> $EF_{grid,BM,y} = \frac{CAP_{Thermal,y}}{CAP_{Total,y}} \times EF_{Thermal,y}$ <p><u>STEP 6. Calculate the combined margin emissions factor</u></p> $EF_{grid,CM,y} = w_{OM} \times EF_{grid,OM,y} + w_{BM} \times EF_{grid,BM,y}$ <p>=0.7244 tCO<sub>2</sub>e/MWh.</p>	
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<p>B.6.1.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with the latest version of tool to calculate emission factor of electricity system (wherever applicable) and the underlying methodology?</p>	<p>EB 63 Annex 19</p>	<p>DR</p>	<p>The power generated by the project displaces the equivalent electricity generated by the Grid, which is the project electricity system.</p> <p>For CPA 01, the power generated by the project displaces the equivalent electricity generated by the CCPG, which is the project electricity system. The CCPG is a large regional grid, which covers Henan province, Hubei province, Hunan province, Jiangxi province, Sichuan province, and Chongqing city. In addition, CCPG imports electricity from North West Power Grid and the North China Power Grid, which are connected electricity systems.</p>	<p>OK</p>
<p>B.6.1.3. Are the steps and equations applied to calculate project emissions in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p>	<p>Yes. Each step and equation applied for PE<sub>y</sub> are correct and replicable.</p> <p>According to the AMS-I.D and AMS-III.G, project emissions are to be calculated as:</p> $PE_y = PE_{power,y} + PE_{flare,y} + PE_{process,y}$ <p>(1) According to AMS-III.G, project emissions from electricity consumption are determined as per the procedures described in AMS-I.D. According to AMS-I.D, the net electricity supplied to the grid is the difference between the measured quantities of the grid electricity export and the import. Thus, the electricity consumed by the project is already considered in the net electricity supplied to the grid (EG<sub>BL,y</sub>). Therefore, PE<sub>power,y</sub> is 0.</p> <p>(2) Since the project generates electricity, internal electricity consumption is deducted from the gross generation, and only the net export is taken into account to calculate the emission reductions. And the CPA does not involve upgrading process, therefore, PE<sub>process,y</sub> = 0.</p> <p>(3) The CPA destroys part of the recovered landfill gas by flaring. Therefore, project emissions from flaring in year y</p>	<p>OK</p>

		<p>(<math>PE_{flare,y}</math>) are determined following the procedure described in the “Tool to determine project emissions from flaring gases containing methane”.</p> $PE_{flare,y} = \sum_{h=1}^{8760} TM_{RG,h} (1 - \eta_{flare,h}) \times \frac{GWP_{CH4}}{1000}$ <p>For the CPA, the flare type is enclosed flare, and the flare efficiency is the default value. The flare efficiency in the hour <math>h</math> (<math>\eta_{flare,h}</math>) is:</p> <ul style="list-style-type: none"> <li>• 0% if the temperature in the exhaust gas of the flare (<math>T_{flare}</math>) is below 500 °C for more than 20 minutes during the hour <math>h</math>.</li> <li>• 50%, if the temperature in the exhaust gas of the flare (<math>T_{flare}</math>) is above 500 °C for more than 40 minutes during the hour <math>h</math>, but the manufacturer’s specifications on proper operation of the flare are not met at any point in time during the hour <math>h</math>.</li> <li>• 90%, if the temperature in the exhaust gas of the flare (<math>T_{flare}</math>) is above 500 °C for more than 40 minutes during the hour <math>h</math> and the manufacturer’s specifications on proper operation of the flare are met continuously during the hour <math>h</math>.</li> </ul> <p>And Mass flow rate of methane in the residual gas in the hour <math>h</math> (<math>TM_{RG,h}</math>) is calculated as:</p> $TM_{FG,h} = FV_{RG,h} \times fv_{CH4,RG,h} \times \rho_{CH4,n}$	
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<p>B.6.1.4. Are the steps and equations applied to calculate leakages in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p>	<p>According to AMS-III.G: <i>If the methane recovery technology is equipment transferred from another activity, leakage effects are to be considered.</i></p> <p>Similarly, according to AMS-I.D: <i>If the energy generating equipment is transferred from another activity, leakage is to be considered.</i></p> <p>There is no equipment transferred from another activity, thus there are no leakage emissions for the CPA.</p>	<p>OK</p>
<p>B.6.1.5. Are the steps and equations applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p>	<p>Yes. Each step and equation applied for ER<sub>y</sub> are correct and replicable.</p> <p>1) According to AMS-III.G and AMS-I.D, the expected emission reductions achieved by the CPA are estimated ex-ante as:</p> $ER_{y,estimated} = BE_y - PE_y - LE_y$ <p>By combining equations applied, the ex-ante estimate of the emission reduction is:</p> $ER_{y,estimated} = p_{captured} \cdot BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4} + EG_{BL,y} \cdot EF_{CO2,grid,y} - PE_{flare,y} - LE_y$ <p>2) According to AMS-III.G and AMS-I.D, the actual emission reduction achieved by the CPA will be calculated using the amount of methane recovered and destroyed/gainfully used by the project activity, calculated as:</p> $ER_{y,calculated} = (MD_y - MD_{reg,y}) \cdot GWP_{CH4} - PE_y - LE_y$ $MD_y = w_{CH4,y} \cdot D_{CH4,y} \cdot \sum_i LFG_{i,y}$ $\sum_i LFG_{i,y} = LFG_{total,y} = LFG_{flare,y} + LFG_{electricity,y}$ <p>In conclusion, actual emission reductions are calculated as:</p>	<p>OK</p>

			$ER_{y,calculated} = (w_{CH4,y} \cdot D_{CH4,y} \cdot LFG_{total,y} - MD_{reg,y}) \cdot GWP_{CH4}$ $+ EG_{BL,y} \cdot EF_{CO2,grid,y} - PE_y - LE_y$	
B.6.1.6. Where there is an option between different equations or parameters, has the methodological choices for the project been explained, have they been properly justified and are they correct?	VVS Para. 97 PS Para. 51	DR	Yes. The applicability conditions for different equations and parameters are clearly described for different CPA.	OK
B.6.1.7. Whether all ex-ante data sources and assumptions are appropriate and calculations are correct as applicable to the proposed project activity, and will result in an accurate or otherwise conservative estimate of the emission reductions?	VVS Para. 98 PS Para. 52	DR	BE <sub>CH4,SWDS,y</sub> and the grid emission factor are ex-ante calculated at CPA level.	OK
B.6.1.8. Are the ex-post monitored data estimated appropriated for calculation of ex-ante emission reductions?	VVS Para. 98	DR	Yes. BE <sub>CH4,SWDS,y</sub> and PE <sub>flare,y</sub> are required to be monitored ex-post and estimated ex-ante at CPA level.	OK
B.6.1.9. Whether a sampling plan is properly developed?	PS Para. 53 EB65 Annex 2	DR	NA.	OK

**B.6.2. Data and parameters that are to be reported ex-ante**

B.6.2.1. Are all assumptions and data used are reasonable and listed in the generic CPA DD, including their references and sources?	VVS Para. 99	DR	All assumptions and data for ER calculations are quoted at the CPA level.	OK
B.6.2.2. Are all documentation used by project participants as the basis for assumptions and source of data is correctly quoted and interpreted in the PDD?	VVS Para. 99	DR	All assumptions and data for ER calculations are quoted at the CPA level.	OK
<b>B.6.3. Ex-ante calculations of emission reductions</b>				

<p>B.6.3.1. Does the generic CPA-DD present a step-wise ex-ante emission reduction calculations for each generic CPA in accordance with the selected methodology(ies)?</p>	<p>PS Para. 50</p>	<p>DR</p> <p>CAR#14 was raised requesting to provide a transparent ex ante calculation of project emissions, baseline emissions, and leakage emissions expected during the crediting period, applying all relevant equations provided in the selected methodologies as per annex 13 EB66. Ex ante calculation of project emissions, baseline emissions, and leakage emissions have been correctly reported in section B.6.3 of part II of PoA DD version 3.0 and complying with the methodologies and tools applied in the PoA. CAR#14 was closed.</p> <p>In summary, emission reductions are estimated ex-ante:</p> <p><b>Baseline emissions</b></p> $BE_y = p_{captured} \cdot BE_{CH_4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH_4} + EG_{BL,y} \cdot EF_{CO_2,grid,y}$ $BE_{CH_4,SWDS,y} = \varphi_y (1 - f_y) \cdot GWP_{CH_4} \cdot (1 - OX) \cdot \frac{16}{12} \cdot F \cdot DOC_{f,y} \cdot M$ $\cdot \sum_{x=1}^y \sum_j W_{j,x} \cdot DOC_j \cdot e^{-kj(y-x)} (1 - e^{-kj})$ <p><b>Project emissions</b></p> $PE_y = PE_{power,y} + PE_{flare,y} + PE_{process,y}$ $PE_{power,y} = 0$ $PE_{flare,y} = \sum_{h=1}^{8760} TM_{RG,h} (1 - \eta_{flare,h}) \times \frac{GWP_{CH_4}}{1000}$ $PE_{process,y} = 0$ <p><b>Leakage emissions</b></p> $LE_y = 0$ <p><b>Emission Reductions</b></p>	<p>CAR#14 OK</p>
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			$ER_{y,estimated} = BE_y - PE_y - LE_y$	
<b>B.7. Estimation of emission reductions of a generic CPA</b>				
<b>B.7.1. Data and parameters to be monitored by each generic CPA</b>				
<p>B.7.1.1. Does the generic CPA-DD list all data and parameters to be monitored as per applied methodology(ies) and tool(s)?</p> <p>B.7.1.2. Does appropriate units, the measurement methods, and QA/QC procedures included in the generic CPA?</p>	<p>PS Para. 55, 56, 156 VVS Para. 132</p>	<p>DR</p>	<p>Yes. All parameters required by the applied methodologies and tools will be monitored during the crediting period. The units and appropriate measurement methods are correctly included. And calibration is included to ensure the quality of the monitoring data.</p>	<p>OK</p>
<b>B.7.2. Description of the monitoring plan for a generic CPA</b>				

B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	PS Para. 56, 156	DR	Yes. An organizational structure of the project is presented. The responsibilities of general manager, CDM manager, and operator are clearly described.	OK
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly defined and feasible?	PS Para. 56 VVS Para. 132	DR	Operators will take turns to work in the control centre 24 hours a day. They will be in charge of data supervision. $-F_{n+1}$ , E3, and gas analyzer are continuously measured and monitored data will be recorded and electronic archived once per hour by computer automatically.	OK
B.7.2.3. Does the QA/QC procedure included in the monitoring plan?	PS Para. 56 VVS Para. 132	DR	Yes. QA/QC is sufficiently described in the section D.7 of the CPA DD to ensure the proper implementation of the monitoring plan.  All the monitoring devices listed in section D.7.1 will be calibrated once a year by a qualified third party. When the data is not available from the main monitoring devices, the data measured by the back-up devices, if available, will be used.	OK
B.7.2.4. Does the uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables defined?	PS Para. 56	DR	The accuracy will be defined at the CPA level.	OK
B.7.2.5. Does the calibration frequency for the measuring equipments defined?	PS Para. 56	DR	Yes. The calibration frequency is once a year.	OK
1. Does sampling plan included, where applicable?	PS Para. 155	DR	NA. Sampling plan is not required.	OK
2. If applicable, does Appendix 5 provide useful information enabling a better understanding of the envisioned monitoring provisions?		DR	NA. No further information included in the appendix 5.	OK

**Table-4 - CPA DD**

Checklist Question	Reference Criteria	MoV*	SGS Assessment	Conclusion / CARs/CLs																		
A. General Description of CPA																						
A.1. Title of the proposed or registered PoA																						
A.1.1. Is the title of the proposed or registered PoA correct?	PS Para. 31	DR	The tile of the POA “Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities” is correct and consistent.	OK																		
A.2. Title of the CPA																						
A.2.1. Does the used project title clearly enable the reader to identify the unique CDM activity?  A.2.2. Is there an indication of a revision number and the date of the revision?	PS Para. 31	DR	<div>The title of the CPA 01 is “CPA-01: Shangrao MSW landfill site LFG recovery to power project”. The location and category are included in the title and enable the reader to identify the unique CPA. The version and date of the revision are included:<table><tr><th>Version</th><th>Date</th><th>Comments</th></tr><tr><td>1.0</td><td>28/12/2011</td><td>First Issuance for GSC (as large scale)</td></tr><tr><td>2.0</td><td>18/04/2012</td><td>First Issuance for GSC (as small scale)</td></tr><tr><td>3.0</td><td>01/08/2012</td><td>Revised according to CAR&amp;CL</td></tr><tr><td>3.1</td><td>27/08/2012</td><td>Revised PoA title by CME</td></tr><tr><td>3.2</td><td>24/12/2012</td><td>Minor changes for the submission for registration</td></tr></table></div>	Version	Date	Comments	1.0	28/12/2011	First Issuance for GSC (as large scale)	2.0	18/04/2012	First Issuance for GSC (as small scale)	3.0	01/08/2012	Revised according to CAR&CL	3.1	27/08/2012	Revised PoA title by CME	3.2	24/12/2012	Minor changes for the submission for registration	OK
Version	Date	Comments																				
1.0	28/12/2011	First Issuance for GSC (as large scale)																				
2.0	18/04/2012	First Issuance for GSC (as small scale)																				
3.0	01/08/2012	Revised according to CAR&CL																				
3.1	27/08/2012	Revised PoA title by CME																				
3.2	24/12/2012	Minor changes for the submission for registration																				
A.3. Description of the CPA																						
A.3.1. Does the description of the proposed CPA provide and understanding of the nature of the CPA and its implementation?	VVS Para. 64 PS Para. 30	DR, SV	<div>Yes. The description of the CPA enable reader clearly understanding the nature of the CPA and its implementation: The CPA implemented by Shangrao BCCY New Power Co., Ltd., will collect the landfill gas from the Shangrao landfill site and utilize it to generate electricity and extra part will be destroyed by enclosed flare. The CPA plans to install 4 engines with each capacity of 0.5 MW.</div>	OK																		

			and total capacity is 2.0 MW. The CPA will combust the LFG, which contains nearly 50% of methane, to produce electricity and export it to the Central China Power Grid (CCPG).	
<p>A.3.2. How the CPA will reduce GHG emission or increase GHG removals?</p> <p>A.3.3. Does the contribution of the CPA to the sustainable development described?</p>	PS Para. 31	DR	<p>The electricity generated will be exported to the Central China Power Grid (CCPG), which is dominated by fossil fuel based power plants. The emission reduction is from both the methane destroyed and the grid electricity displaced. An annual average of 32,426 tCO<sub>2</sub>e/y is estimated and a total of 324,265 tCO<sub>2</sub>e for a 10-year crediting period.</p> <p>According to para 31-32 of PS version 01, how the CPA will contribute to the sustainable development, and which sectoral scope and type of the CPA belong to should be described in section A of CPA DD. CAR#1 was raised. After reviewing the revised CPA DD, it is confirmed that the requirement in the para 31-32 of PS version 01 has been correctly described in the CPA DD version 3.0. CAR#1 was closed.</p> <p>The CPA will reduce the greenhouse gas (GHG) emissions by destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from grid dominated by fossil fuel power plant.</p> <p>The CPA will contribute to the sustainable development in the host country, not only it because of avoiding global warming, but also because it increases the availability of electricity from renewable sources. The CPA will minimize the explosion risk at the landfill site, remove the terrible odours and improve the air quality of local area by destroying LFG. In addition, the CPA will create job opportunities through the construction and operation of the LFG capture system and the power units.</p>	<del>CAR#1</del> OK
A.3.4. Does the scenario prior to the implementation of the proposed CPA described?	PS Para. 32	DR, SV	Yes. The existing scenario prior to the start of implementation of the project activity is that LFG would have been directly released to the atmosphere without recovery and utilization and the equivalent electricity would have been supplied by the Grid.	OK
<b>A.4. Entity/individual responsible for CPA</b>				
A.4.1. Is the entity/individual responsible for the operation of the CPA correctly indentified by the CME and that this	PS Para. 148 EB55 Annex 38 Para.	DR	The CPA is implemented by Shangrao BCCY New Power Co., Ltd. and the information is consistent with the section A.6 and Appendix 1.	<del>CL#3</del> OK

information is consistent with the information provided in the subsequent section?	7		In the section A.4 of the generic CPA and CPA 01, the role of Henan BCCY New Power Industry Co., Ltd. ("BCCY") is not consistent. CL#3 was raised. It is confirmed that the role of BCCY is CME by reviewing the revised generic CPA version 3.0 and specified CPA 01 version 3.0. CL#3 was closed.	
<b>A.5. Technical Description of the CPA</b>				
A.5.1. Does the technology(ies) and/or measures to be used by the CPA describe in accordance with the proposed or registered PoA and enable the identification of the project's scale and type, demonstration of additionality, application of the selected methodology(ies) and calculations of GHG emission reductions or net GHG removals?	PS Para. 147	DR	<p>The technology/measure to be used in the CPA is consistent with the proposed PoA and enable the identification of the project's scale and type, demonstration of additionality, application of the selected methodology(ies) and calculations of GHG emission reductions or net GHG removals.</p> <p>The categories of the CPA are sectoral scope 13: Waste handling and disposal and sectoral scope 01: Energy Industries (renewable / non-renewable sources).</p> <p>The CPA is a greenfield plant which consists of LFG collection, transmission and pre-treatment system, with subsequent electricity generation and delivery to the grid and LFG flaring system. The CPA plans to install 4 engines with each capacity of 0.5 MW, and total capacity is 2.0 MW.</p>	OK
A.5.2. Does the proposed CDM CPA involve the alteration of existing installations or process?	VVS Para. 68	DR, SV	No, the CPA is a greenfield plant.	OK
A.5.3. Is all information provided accurate, complete, and provides an understanding of the technology applied in each CPA?	VVS Para.64, 69	DR, SV	<p>The project doesn't start construction.</p> <p>It is stated that the LFG Flare system is optional in section A.5 of CPA 01 and subsequent sections while it is described that extra LFG will be destroyed by enclosed flare in section A.3 of CPA 01. CAR#2 was raised regarding the inconsistency.</p> <p>The CPA will adopt the enclosed flare and consistency has been kept in the CPA version 3.0. All information provided in the CPA DD is compliance with the FSR. CAR#2 was closed.</p> <p>For footnote 1 in page 2 of CPA version 02, Figure B.4 Monitoring System is not existed. CAR#4 was raised. The mistake has been corrected as figure 5 of monitoring system in the CPA version 3.0. CAR#4 was closed.</p>	<p>CAR#2</p> <p>CL#4</p> <p>OK</p>

A.6. Party(ies)				
A.6.1. Whether the party(ies) and CPA implementer(s) involved in the CPA are listed in tabular form and provide contact information in Appendix 1?	VVS Para. 46 PS Para. 148 EB55 Annex 38 Para. 7	DR	Yes. The implementer of the CPA is Shangrao BCCY New Power Co., Ltd. and the party involved in the CPA is China, which are consistent with the Appendix 1.	OK
A.7. Geographic reference or other means of identification				
A.7.1. Does the information provided on the location of the CPA allow for a clear identification of the site(s)?	VVS Para.69	DR	Yes. The information provided on the location of the PoA DD and the CPA 01 DD allows for a clear identification of the site.  This CPA is located in Shangrao city, Jiangxi province, People's Republic of China. The geographical coordinates are longitude 118°01'39"E and latitude 28°27'00"N. And a figure also indicated the location of the CPA.	OK
A.7.2. Are the latitude and longitude of the CPA site indicated (decimal points)	PS Para. 146 EB55 Annex 38 Para. 7	DR	The geographical coordinates are longitude 118°01'39"E and latitude 28°27'00"N (Decimal point: 118.0275° E and 28.45°N).	OK
A.8. Duration of the CPA				
A.8.1. How the start date (DD/MM/YYYY) of the CPA has been determined?	PS Para. 159 EB55 Annex 38 Para. 7 Glossary of CDM Term (version 06.0)	DR	CL#5 was raised requesting PP to clarify how the start date of the CPA 01 is determined in the CPA DD version 2.0. PP clarified that the start date must be indicated as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc. The CPA 01 has not started yet, therefore the start date of the CPA 01 in section A.8.1 has been revised as 01/09/2012 (expected). CL#5 was closed.	CL#5 OK
A.8.2. Is the start date of the CPA not prior to the commencement of the validation of the PoA, which is the date the CDM-PoA-DD is first published for global stakeholder consultation?	VVS Para 193 PS Para. 160	DR	The start date of the CPA is not prior to the GSC date of the POA. The 1 <sup>st</sup> GSC date of the PoA is 24/01/2012 and the 2 <sup>nd</sup> GSC date of the PoA is 27/04/2012. The CPA 01 has not started yet.	OK
A.8.3. Does the expected operational	PS Para. 159	DR	The operational lifetime of the CPA is 19 years as per the FSR.	OK

lifetime of the CPA determined?				
<b>A.9. Choice of the crediting period and related information</b>				
A.9.1. Is the type (fixed or renewable) and duration of crediting period of the proposed CDM CPA chosen?	PS Para. 161	DR	10-year fixed Crediting period is chosen.	OK
A.9.2. Whether the start date of the crediting period is the date of inclusion of the CPA in the registered PoA or any date thereafter?	PS Para. 162	DR	The start date of the crediting period is 01/01/2013, when this CPA starts operation, or inclusion of this CPA into registration PoA, whichever is later.	OK
A.9.3. Whether only one start date for the crediting period of the proposed CDM CPA is determined, even in cases of phased implementation of the CPA?	PS Para. 163	DR	Yes. Only one start date which is 01/01/2013	OK
A.9.4. Whether the start date of the crediting period of the proposed CDM CPA is in the format dd/mm/yyyy?	PS Para. 164	DR	Yes. It is 01/01/2013	OK
A.9.5. Whether the duration of the crediting period is not exceed the end date of the PoA?	PS Para. 162	DR	No. The duration of the crediting period of the CPA is 10 years with start date of 01/01/2013 while the duration of the crediting period of the PoA is 28 years with start date of 24/01/2012.	OK
<b>A.10. Estimated amount of GHG emission reductions</b>				
A.10.1. Is the estimate of annual GHG emission reductions for each year of the crediting period and, the annual average and the total GHG emission reductions over the chosen crediting period (or the first crediting period) in the table consistent with subsequent section?	VVS Para. 64	DR	Yes. ERs for each year of the crediting period, the annual average and the total GHG emission reductions over the fixed crediting period are correctly included.	OK
<b>A.11. Public funding of the CPA</b>				
A.11.1. Does the information on sources of public funding for the CPA provided conform to the actual situation or planning as presented by the project participants?	PS Para. 34	DR, I	No. By checking the FSR approval and statement of no public fund involved issued by the implementer, no public funding involved in the CPA.	OK



A.11.2. Is all information provided consistent with details provided by further chapters of the CPA DD (in particular appendix 2)?	VVS Para. 64	DR	Yes, all information provided is consistent with details provided in the Appendix 2, indicating there's no public funding for the project.	OK
A.11.3. In case of public funding from Annex I Parties, is it confirmed that such funding does not result in a diversion of official development assistance and is not counted towards the financial obligations of those parties?	PS Para. 34	DR	NA. There is no public funding involved in this project.	OK
<b>A.12. Debundling of small-scale component project activities</b>				
A.12.1. Whether each of the independent subsystems/measures (e.g., biogas digester, solar home system) included in the CPA of a PoA is no larger than 1% of the small-scale thresholds defined by the methodology applied?	PS Para. 157 VVS Para. 203 EB 54 Annex 13 Para. 10		No, they are larger than 1% of the small-scale thresholds defined by the methodology applied. For Type I, the CPA equipped with total capacity of 2MW, 500kW for each generator. For Type III, the annual ERs is 28,049tCO <sub>2</sub> e.	OK
A.12.2. Whether there is already an activity <sup>1</sup> which satisfies both conditions (a) and (b) below: (a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and; (b) The boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.	PS Para. 157 VVS Para. 203 EB 54 Annex 13 Para. 8	DR	No such project satisfies both conditions by checking the UNFCCC website and onsite physical inspection. Thus, the CPA is not a debundled component.	OK
A.12.3. If the proposed small-scale CPA of a PoA is deemed to be a debundled component, whether the total size of such a CPA combined with a	PS Para. 157 VVS Para. 203 EB 54 Annex 13 Para.	DR	No, the CPA is not a debundled component.	OK

<sup>1</sup> Which may be a (i) registered small-scale CPA of a PoA, (ii) an application to register another small-scale CPA of a PoA or (iii) another registered CDM project activity.

registered small-scale CPA of a PoA or a registered CDM project activity does not exceed the limits for small-scale CDM	9			
<b>A.13. Confirmation for CPA</b>				
A.13.1. Whether the confirmation that the CPA is neither registered as a CDM project activity nor included in another registered PoA is included?	EB 55 Annex 38 Para. 7 PS Para. 149	DR	By checking the UNFCCC website, the CPA is neither registered as an individual CDM project activity nor is part of another registered PoA, nor is identical with another CPA already included in this PoA.  CL#6 was raised requesting PP to clarify how the implementer is aware that the CPA will be included in the PoA. By reviewing the statement of awareness of inclusion in PoA issued by the implementer dated 12/06/2012, it is confirmed that the implementer voluntarily participates in the PoA and appoints BCCY as CME. CL#6 was closed.	CL#6 OK
<b>B. Environmental analysis</b>				
B.1.1. Has an analysis of the environmental impacts of the CPA been sufficiently described?	VVS. Para. 134, 200 PS Para. 63	DR	CL#7 was raised requesting PP to clarify what kind of mitigation measure will be taken for pollution caused by the CPA during the construction period. The analyses of the environmental impacts of the CPA are summarized from the EIA and have been sufficiently described in the CPA DD:  During the construction period, wastewater, waste gas and dust, noise and solid waste pollution, etc. caused by the CPA will be treated according to the measures in the EIA, and there will be no significant impact on the environment. In order to mitigate the air pollution during the construction period, the following measures will be taken: spray some water on the floor to avoid the dust being blown, take sealing or other protective measures to avoid the dust diffuse in the transportation, loading and unloading of substances and enhance the environmental protection education to the staffs working for the construction. For mitigation the waste water pollution, reduce the materials scattering, construct a wall of 50cm high around the bulk material yard to prevent the washing of raining and build a simple sedimentation tank to separate the sand in the waste water. The	CL#7 OK

			solid waste from the construction site will be sent to the solid waste disposal site or other appointed place regularly. For reducing the noise pollution, the construction company will enhance the management of noise source, such as arranging reasonable schedule for the high-noise construction time, installing portable sound insulating screen closed to the high-noise equipment. CL#7 was closed.	
B.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	VVS Para. 135, 136 PS Para. 64	DR	Yes. In 10/2011, an environmental impact assessment (EIA) was completed in accordance with <i>Law of Environmental Impact Assessment</i> and was approved by the Environmental Protection Bureau of Jiangxi province on 23/02/2012.	OK
B.1.3. Will the project create any adverse environmental effects?	VVS. Para. 134	DR,I ,SV	By interviewing with the local EPB and local residents and reviewing the EIA approval, it is confirmed that there is no adverse environmental effects.	OK
B.1.4. Are trans-boundary environmental impacts considered in the analysis?	PS Para. 63	DR,I	No trans-boundary environmental impacts for the CPA by interviewing with the local EPB and local residents and reviewing the EIA approval.	OK
<b>C. Local stakeholder comments</b>				
<b>C.1. Solicitation of comments from local stakeholders</b>				
C.1.1. Is the local stakeholder consultation done at PoA level or CPA level? If CPA level, is the local stakeholder consultation completed before submission of the PoA for validation?	PS Para. 166, 167 VVS Para. 201, 202	DR,I	The local stakeholder consultation is done at CPA level.  Yes, the stakeholders were informed about the stakeholder meeting through posters on 09/09/2011. The stakeholder consultancy meeting was organized at the meeting room of Shangrao landfill site on 25/10/2011. The local stakeholder consultation is earlier than the PoA 1 <sup>st</sup> GSC date of 24/01/2012.	OK
C.1.2. Have appropriate procedure been used to invite comments by local stakeholders?	VVS Para. 138, 201 PS. Para. 66	DR, I	Yes. The stakeholders were informed about the stakeholder meeting through posters on 09/09/2011. The stakeholder consultancy meeting was organized at the meeting room of Shangrao landfill site on 25/10/2011. 25 questionnaires were distributed to local residents and returned during the meeting.	OK
<b>C.2. Summary of comments received</b>				
C.2.1. Is the undertaken stakeholder	VVS Para. 139	DR	The questions in section C.1 and the summary of comments in	CAR#8

process described in a complete and transparent manner?			section C.2 are not fully consistent. CAR#8 was raised. By reviewing the questionnaires and revised CPA DD, it is confirmed that the consistency are kept. CAR#8 was closed.	OK
C.2.2. Is a summary of the stakeholder comments received provided?	PS Para. 67	DR	Yes. The stakeholders' comments were summarized in the CPA DD.	OK
<b>C.3. Report on consideration of comments received</b>				
C.3.1. Has due account been taken of any stakeholder comments received?	PS Para. 68 VVS Para. 139	DR,I	No negative comments were received by reviewing the questionnaires and stakeholder consultation meeting minutes. Therefore no corrective action had to be taken.	OK
<b>D. Eligibility of CPA and Estimation of emissions reductions</b>				
<b>D.1. Title and reference of the approved baseline and monitoring methodology(ies) selected</b>				
D.1.1. Does the reference number, title and version of the applied methodology(ies) including tools, standards and/or guidelines required by the methodology(ies), consistent with PoA and valid at the time of submission contain?	PS Para. 37 VVS Para. 70, 71, 74	DR	<p>CL#9 was raised requesting PP to specify the version of related methodologies and tools in section D.1 of the generic CPA. The reference number, title and version of the applied methodologies including tools and standards are consistent with PoA and valid at the time of submission by reviewing the CPA DD. CL#9 was closed.</p> <p><b>Applied methodology:</b> AMS-III.G: Landfill Methane Recovery - Version 7.0 AMS-I.D: Grid connected renewable electricity generation - Version 17.0</p> <p><b>Cited tools:</b></p> <ul style="list-style-type: none"> <li>AMS-III.H: Methane recovery in wastewater treatment" – version 16.0</li> <li>Methodological tool "Emission from solid waste disposal sites" – Version 06.0.1</li> <li>Tool to determine project emissions from flaring gases containing methane – Version 01</li> <li>Tool to calculate the emission factor for an electricity system - Version 02.2.1</li> <li>Guidelines on the demonstration of additionality of small-scale project activities -Version 09.0</li> </ul>	CL#9 OK

			<ul style="list-style-type: none"><li>Standard for Demonstration of Additionality, Development of Eligibility Criteria and Application of Multiple Methodologies for Programme of Activities - Version 01.0</li></ul>							
D.2. Application of methodology(ies)										
D.2.1. Whether the project activity meets each of the applicability conditions of the approved methodology or any tool or other methodology component referred to therein and in accordance with the PoA?	PS Para. 38 VVS Para. 76, 77	DR	<p>Yes. The applicability conditions of the applied methodologies AMS-III.G and referred AMS-III.H are justified as below:</p> <table><tr><th>Applicability conditions for AMS-III.G</th><th>Check</th></tr><tr><td>1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.</td><td>The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.</td></tr><tr><td>2. Different options to utilise the recovered landfill gas as detailed in paragraph 3 of AMS-III.H "Methane recovery in wastewater treatment" (version 16) are eligible for use under this methodology. The relevant procedures in AMS-III.H shall be followed in this regard. The recovered methane from the above measures may also be utilized for the following applications instead of flaring or combustion: (a) Thermal or mechanical, electrical energy generation directly; (b) Thermal or mechanical, electrical energy generation after bottling of upgraded biogas, in this case additional guidance provided in Annex I shall be followed; or (c) Thermal or mechanical, electrical energy generation after upgrading and distribution, in this case additional guidance provided in Annex I shall be followed:</td><td>The recovered methane is utilized for electrical generation directly (i.e. by gas engines included in the project boundary) – option (a). Therefore it is satisfied with the application (a).</td></tr></table>	Applicability conditions for AMS-III.G	Check	1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.	The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.	2. Different options to utilise the recovered landfill gas as detailed in paragraph 3 of AMS-III.H "Methane recovery in wastewater treatment" (version 16) are eligible for use under this methodology. The relevant procedures in AMS-III.H shall be followed in this regard. The recovered methane from the above measures may also be utilized for the following applications instead of flaring or combustion: (a) Thermal or mechanical, electrical energy generation directly; (b) Thermal or mechanical, electrical energy generation after bottling of upgraded biogas, in this case additional guidance provided in Annex I shall be followed; or (c) Thermal or mechanical, electrical energy generation after upgrading and distribution, in this case additional guidance provided in Annex I shall be followed:	The recovered methane is utilized for electrical generation directly (i.e. by gas engines included in the project boundary) – option (a). Therefore it is satisfied with the application (a).	OK
Applicability conditions for AMS-III.G	Check									
1. This project category comprises measures to capture and combust methane from landfills (i.e., solid waste disposal sites) used for disposal of residues from human activities including municipal, industrial, and other solid wastes containing biodegradable organic matter.	The CPA consists of capturing and combusting LFG (which contains methane) from a landfill site, which is used for disposal of residues from human activities. Therefore this condition is fulfilled.									
2. Different options to utilise the recovered landfill gas as detailed in paragraph 3 of AMS-III.H "Methane recovery in wastewater treatment" (version 16) are eligible for use under this methodology. The relevant procedures in AMS-III.H shall be followed in this regard. The recovered methane from the above measures may also be utilized for the following applications instead of flaring or combustion: (a) Thermal or mechanical, electrical energy generation directly; (b) Thermal or mechanical, electrical energy generation after bottling of upgraded biogas, in this case additional guidance provided in Annex I shall be followed; or (c) Thermal or mechanical, electrical energy generation after upgrading and distribution, in this case additional guidance provided in Annex I shall be followed:	The recovered methane is utilized for electrical generation directly (i.e. by gas engines included in the project boundary) – option (a). Therefore it is satisfied with the application (a).									



			national/regional grid through a contractual arrangement such as wheeling		
			2. Illustration of situations under the methodology AMS-I.D as follows: <ul style="list-style-type: none"> <li>Project supplies electricity to a national/regional grid;</li> <li>Project supplies electricity to an identified consumer facility via national/regional grid (through a contractual arrangement such as wheeling)</li> </ul>	The CPA plans to supply electricity to CCPG. Therefore this condition is fulfilled.	
			3. This methodology is applicable to project activities that (a) install a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the project activity (Greenfield plant); (b) involve a capacity addition <sup>1</sup> ; (c) involve a retrofit of (an) existing plant(s); or (d) involve a replacement of (an) existing plant(s).	The CPA installs a new power plant at a site where there was no renewable energy power plant operating prior to the implementation of the CPA (greenfield plant). Therefore this condition of (a) is fulfilled.	
			4. Hydro power plants with reservoirs that satisfy at least one of the following conditions are eligible to apply this methodology: <ul style="list-style-type: none"> <li>The project activity is implemented in an existing reservoir with no change in the volume of reservoir;</li> <li>The project activity is implemented in an existing reservoir (A reservoir is to be considered as an "existing reservoir" if it has been in operation for at least three years before the implementation of the project activity.), where the volume of reservoir is increased and the power density of the</li> </ul>	Not applicable (the CPA is not a hydro power plant).	



			<p>project activity, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>;</p> <ul style="list-style-type: none"> <li>The project activity results in new reservoirs and the power density of the power plant, as per definitions given in the project emissions section, is greater than 4 W/m<sup>2</sup>.</li> </ul>		
			<p>5. If the new unit has both renewable and non-renewable components (e.g., a wind/diesel unit), the eligibility limit of 15 MW for a small-scale CDM project activity applies only to the renewable component. If the new unit co-fires fossil fuel, the capacity of the entire unit shall not exceed the limit of 15 MW.</p>	<p>Not applicable (the CPA does not use non-renewable components nor co-fires fossil fuels).</p>	
			<p>6. Combined heat and power (co-generation) systems are not eligible under this category</p>	<p>The CPA does not co-generate heat and power (only power). Therefore this condition is fulfilled.</p>	
			<p>7. In the case of project activities that involve the addition of renewable energy generation units at an existing renewable power generation facility, the added capacity of the units added by the project should be lower than 15 MW and should be physically distinct<sup>6</sup> from the existing units.</p>	<p>Not applicable (the CPA does not involve addition of renewable energy generation units at an existing renewable power generation facility).</p>	
			<p>8. In the case of retrofit or replacement, to qualify as a small-scale project, the total output of the retrofitted or replacement unit shall not exceed the limit of 15 MW.</p>	<p>Not applicable (the CPA project is not a retrofit or replacement)</p>	
			<p>Besides, the applicability conditions of applied tools were also validated as below:</p> <p>Emission from solid waste disposal sites” – Version 06.0.1</p>		

			<b>Applicability conditions</b>	<b>Check</b>	
			<b>Application A:</b> The CDM project activity mitigates methane emissions from a specific existing SWDS. Methane emissions are mitigated by capturing and flaring or combusting the methane (e.g. ACM0001).The methane is generated from waste disposed in the past, including prior to the start of the CDM project activity. In these cases, the tool is only applied for an ex-ante estimation of emissions in the CDM-PDD. The emissions will then be monitored during the crediting period using the applicable approaches in the relevant methodologies (e.g. measuring the amount of methane captured from the SWDS);	The CPA mitigates methane emissions from a specific existing SWDS. This is fulfilled.	
			<b>Application B:</b> The CDM project activity avoids or involves the disposal of waste at a SWDS. An example of this application of the tool is AM0025, in which MSW is treated with an alternative option, such as composting or anaerobic digestion, and is then prevented from being disposed of in a SWDS. The methane is generated from waste disposed or avoided from disposal during the crediting period. In these cases, the tool can be applied for both ex-ante and ex-post estimation of emissions.	NA	
			Tool to determine project emissions from flaring gases containing methane – Version 01		
			<b>Applicability conditions</b>	<b>Check</b>	
			1. The residual gas stream to be flared contains no other combustible gases than methane, carbon monoxide and hydrogen;	NA	
			2. The residual gas stream to be flared shall be obtained from decomposition of organic material (through landfills, biogasifiers or anaerobic lagoons, among others) or from gases vented in coal	The residual gas stream to be flared is obtained from decomposition of organic material through landfills. This is fulfilled.	

			<table><tr><td colspan="2">mines (coal mine methane and coal bed methane).</td></tr><tr><td colspan="2">Tool to calculate the emission factor for an electricity system - Version 02.2.1</td></tr><tr><td><b>Applicability conditions</b></td><td><b>Check</b></td></tr><tr><td>1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).</td><td>The electricity generated by the CPA will be supplied to CCPG that results in savings of electricity that would have been provided by the grid. Thus, this is fulfilled.</td></tr><tr><td>2. In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.</td><td>The electricity generated by the CPA will be supplied to CCPG within China instead of Annex I country.</td></tr></table>	mines (coal mine methane and coal bed methane).		Tool to calculate the emission factor for an electricity system - Version 02.2.1		<b>Applicability conditions</b>	<b>Check</b>	1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The electricity generated by the CPA will be supplied to CCPG that results in savings of electricity that would have been provided by the grid. Thus, this is fulfilled.	2. In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	The electricity generated by the CPA will be supplied to CCPG within China instead of Annex I country.	
mines (coal mine methane and coal bed methane).														
Tool to calculate the emission factor for an electricity system - Version 02.2.1														
<b>Applicability conditions</b>	<b>Check</b>													
1. This tool may be applied to estimate the OM, BM and/or CM when calculating baseline emissions for a project activity that substitutes grid electricity, i.e. where a project activity supplies electricity to a grid or a project activity that results in savings of electricity that would have been provided by the grid (e.g. demand-side energy efficiency projects).	The electricity generated by the CPA will be supplied to CCPG that results in savings of electricity that would have been provided by the grid. Thus, this is fulfilled.													
2. In case of CDM projects the tool is not applicable if the project electricity system is located partially or totally in an Annex I country.	The electricity generated by the CPA will be supplied to CCPG within China instead of Annex I country.													
D.3. Sources and GHGs														
D.3.1. Does the boundary of the CPA, including the physical delineation of the project activity, and which sources and GHGs are included in the CPA boundary, in accordance with the selected methodology(ies)?	PS Para. 39	DR	<p>Yes. The boundary of CPA includes the CPA plant site, the landfill site, where the LFG is captured and used for electricity generation, the LFG collection system, the LFG pre-treatment system, the gas-generator sets, flaring system for the extra gas, and also includes all the power sources connected physically to the Central China Power Grid (CCPG) and North West Power Grid and North China Power Grid, which are connected to CCPG.</p> <p>According to annex 17 EB66, please clarify whether the CPA is located within the geographical boundary of the proposed PoA, and indicate in the diagram the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored. CAR#10 was raised. The CPA is located in Shangrao city within China, thus the CPA boundary is within the geographical boundary of PoA. The emissions sources of CH4 and CO2 have been added in Figure 3 diagram of boundary of the CPA. The data and parameters to be monitored and corresponding monitoring meters are shown in Figure 5</p>	CAR#10 OK										

			Monitoring System in section B.7.2. CAR#10 was closed.	
D.3.2. In cases where the selected methodology(ies) allows project participants to choose, whether a source or gas is to be included in the project or CPA boundary, project participants is explained and justified?	PS Para. 40 VVS Para. 84, 86	DR	All emission sources and gases within the CPA boundary are clearly identified and described in a complete manner as per the requirement of the methodologies applied. CO <sub>2</sub> from the grid and CH <sub>4</sub> from the landfill site are the main emission sources and included in the baseline emission. CO <sub>2</sub> from onsite electricity consumption and CH <sub>4</sub> from LFG flaring are the main emission sources and included in project emission. No leakage is considered for the CPA 01.	OK
D.3.3. Is there any GHG emissions occurring within the project boundary as a result of the implementation of the proposed project which are expected to contribute more than 1% of the overall expected average annual ERs, which are not addressed by the applied methodology.	VVS Para 87	DR	All greenhouse gas emissions occurring within the proposed CPA boundary as a result of the implementation of the proposed CPA were included by the methodology. There are no emissions which are expected to contribute more than 1% of the overall expected average annual emissions reductions which are not addressed by the applied methodologies.	OK
<b>D.4. Description of the baseline scenario</b>				
D.4.1. Are all potential realistic and credible alternative scenarios listed in the methodology considered in identification of the most reasonable baseline scenario?  D.4.2. Does the CPA DD follow the steps to determine the baseline scenario required by the methodology/tool and has the application of the tools as per methodology been consulted, if the tool(s) are required by the methodology?	VVS Para. 89, 90, 115 PS Para. 41, 42	DR	According to the Para. 115 VVS version 03.0, the baseline scenario is prescribed in the approved methodologies, no further analysis is required.  <b><u>According to AMS-III.G:</u></b>  <i>"The baseline scenario is the situation where, in the absence of the project activity, biomass and other organic matter are left to decay within the project boundary and methane is emitted to the atmosphere. Baseline emissions shall exclude methane emissions that would have to be removed to comply with national or local safety requirement or legal regulations"</i>  <b><u>According to AMS-I.D:</u></b>  <i>"The baseline scenario is that the electricity delivered to the grid by the project activity would have otherwise been generated by the operation of grid-connected power plants and by the addition of new generation sources into the grid".</i>	OK
D.4.3. Whether the most plausible baseline	VVS Para. 91, 94, 95	DR,	<b><u>For type III:</u></b>	CL#11

scenario identified is reasonable and the description is verifiable?		I	<p>CL#11 was raised requesting PP to clarify how the 0.45% of landfill sites (excluding the landfill sites related with CDM projects) flaring and utilizing LFG in China in CPA DD version 2.0 is determined. By validating the “China Development Report on Urban Domestic Refuse Disposal Industry 2010”, the CDM pipeline issued by 01/11/2011, and published information from website, it is confirmed that the correct one is 0.51% instead of 0.45%. Correction has been done in the CPA DD version 3.0. CL#11 was closed.</p> <p>It is confirmed that uncontrolled emission of methane to the atmosphere without any recovery is the most plausible baseline scenario by reviewing <i>Promoting Methane Recovery and Utilization from Mixed Municipal Refuse in China, Terminal Evaluation Report dated 12/2005, Circular on the Outcome of Nationwide Inspection on Hazard-free Treatment of Domestic Waste Landfill Sites dated 02/2007, China Development Report on Urban Domestic Refuse Disposal Industry 2010</i>, the CDM pipeline, and published available website.</p> <p><b>For type I:</b></p> <p>The CPA is a new grid-connected renewable power unit, therefore the baseline is the electricity would be provided by the grid.</p>	OK
D.4.4. Does this include a description of the technology that would be employed and/or the activities that would take place in the absence of the proposed CDM CPA?	VVS Para. 92 PS Para. 46	DR	Yes. In the absence of the CPA, the LFG will be released into the atmosphere without any recovery and the electricity will be provided from the grid.	OK
D.4.5. Have all applicable CDM requirements been taken into account in the identification of the baseline scenario, including relevant national and/or sectoral policies and circumstances?	VVS Para. 93 PS Para. 43-45	DR	NA. The baseline scenario is determined by the methodologies applied: AMS-III.G and AMS-I.D.	OK
<b>D.5. Demonstration of eligibility for a CPA</b>				
D.5.1. Is the geographical boundary of the CPA including any time-induced boundary consistent with the	VVS Para. 196 EB65 Annex 3 Para 14	DR	The geographical coordinates of the CPA are 118°01'39"E and 28°27'00"N, which is within China. This is consistent with the geographical boundary set in the PoA.	OK

geographical boundary set in the PoA?	(a)			
D.5.2. Have the conditions that avoid double counting of emission reductions like unique identifications of product and end-user locations included?	VVS Para. 196 EB65 Annex 3 Para 14 (b)	DR	The CPA is not already registered as a single CDM project or part of another registered CDM PoA or identical with another CPA already included in this PoA. This has been confirmed from the UNFCCC website by checking the geographical coordinates.	OK
D.5.3. Have the specifications of technology/measure including the level and type of service, performance specifications including compliance with testing/certifications included?	VVS Para. 196 EB65 Annex 3 Para 14 (c)	DR	The CPA consists in the installation of a LFG capture and usage system, including electricity generation system to utilize the captured LFG and extra part flaring. This has been confirmed by reviewing the Feasibility Study Report (FSR) of the CPA.	OK
D.5.4. Have the conditions to check the start date of the CPA through documentary evidence included?	VVS Para. 196 EB65 Annex 3 Para 14 (d)	DR	Yes. Till the start date of 1 <sup>st</sup> GSC of the PoA of 24/01/2012, no real action of the CPA, such as signing equipment purchase contract and construction contract and the commencement of construction, had occurred.	OK
D.5.5. Has the conditions ensured compliance with applicability and other requirements of single or multiple methodologies applied by CPAs included?	VVS Para. 196 EB65 Annex 3 Para 14 (e)	DR	The applicability conditions of methodologies have been demonstrated in section D.2 of CPA-DD.	OK
D.5.6. Has the conditions ensured that CPAs meet the requirements pertaining to the demonstration of additionality?	VVS Para. 196 EB65 Annex 3 Para 14 (f)	DR	<p>The latest version: Guidelines on the demonstration of additionality of small-scale project activities -Version 09.0 is used for demonstrate the additionality.</p> <p>FSR of the CPA is the basis for investment analysis. For the timeline of the key CDM events of CPA-01, CL#12 was raised requesting PP to clarify event of investment decision of the CPA.</p> <p>The FSR has been confirmed as the basis of the decision to proceed with the investment in the CPA 01. The period of time between the finalization of the FSR (08/2010) and the investment decision (06/09/2010) is sufficiently short and it is unlikely that the input values would have materially changed. And the FSR was approved by the Development &amp; Reform Commission (DRC) of Jiangxi Province on 12/06/2012. CL#12 was closed.</p>	CL#12 OK

<p>D.5.6.1. Are the relevant requirements of attachment A of Appendix B of the “Simplified modalities and procedures for small-scale CDM project activities” included?</p> <p>(a) investment barrier (b) technical barrier (c) barrier due to prevailing practice (d) other barrier</p>	<p>EB65 Annex 3 Para 9 VVS Para. 159</p>	<p>DR</p>	<p>The investment barrier is used for demonstrating the additionality.</p>	<p>OK</p>
<p>D.5.6.2. If investment analysis has been used to demonstrate the additionality of the CPA, whether:</p> <p>(a) The latest version of the “Guidelines on the assessment of investment analysis” applied? (b) The proposed project activity is not the most economically or financially attractive alternative; or that it is not economically or financially feasible without the revenue from the sale of CERs? (c) The financial calculations carried out for any investment analysis is accurate? (d) The benchmark applied in the investment analysis is suitable? (e) The input values for investment analysis relying on the values from FSR that are approved by national authorities for the CPA are reliable and creditable?</p>	<p>VVS Para. 101-104, 117-123 EB62 Annex 5</p>	<p>DR</p>	<p>(a) By checking the IRR calculation spreadsheet and consulting the financial expert, it is confirmed that the project IRR calculated complying with the “Guidelines on the assessment of investment analysis-version 05” (EB62 Annex 5).</p> <p>(b) Without the revenue from the sale of CERs, the project IRR (after tax) is only 3.53% which is lower than the benchmark. Thus, it is not financially feasible without the revenue from the sale of CERs.</p> <p>(c) It has been confirmed that the financial calculations is accurate through validating the calculation process by the financial expert.</p> <p>(d) The benchmark of 8% is derived from the <i>Interim Rules on Economic Assessment of Electrical Engineering Retrofit Projects</i> (Guodianfa [2002] No.623), issued by the State Power Corporation of China on 10/09/2002. This benchmark is widely applied in financial assessments of electricity generation projects in China. The project owner also has developed a small-scale LFG CDM project (Project 3937, 5238, 5316, 5652) using the same benchmark. The proposed project activity is an electricity generation project and the project IRR (post-tax) of total investment is identified to be the financial factor which has been calculated and compared with the benchmark. Based on the local and sectoral knowledge, the benchmark IRR of 8% is validated to be suitable for the project activity.</p> <p>The input values used in the PDD and associated annexes are fully consistent with the FSR. CAR#13 was raised requesting PP to provide the FSR approval. The FSR was approved by the</p>	<p>CAR#13 OK</p>



			Development & Reform Commission (DRC) of Jiangxi Province on 12/06/2012 and provided. CAR#13 was closed.	
D.5.7. Has the local stakeholder consultations and environmental impact analysis included?	VVS Para. 196 EB65 Annex 3 Para 14 (g)	DR	The local stakeholder consultation and environmental impact analysis for the CPA have been conducted and described in the section B and section C of this CPA-DD. Questionnaire and stakeholder meeting minutes, and the EIA and its approval were validated and confirmed.	OK
D.5.8. Has an affirmation that funding from Annex I parties, if any, does not result in a diversion of official development assistance provided?	VVS Para. 196 EB65 Annex 3 Para 14 (h)	DR	By checking the FSR approval and statement of no public fund involved issued by the implementer, no public funding involved in the CPA.	OK
D.5.9. Where applicable, is the target group and distribution mechanisms described?	VVS Para. 196 EB65 Annex 3 Para 14 (i)	DR	The electricity generated by the CPA will be delivered to the Central China Power Grid, which has been confirmed by validating the Grid Connection Approval issue by Jiangxi province Power Company dated 13/03/2012.	OK
D.5.10. Where applicable, is the sampling requirements for a PoA in accordance with the approved guidelines/standard from the Board pertaining to sampling and surveys included?	VVS Para. 196 EB65 Annex 3 Para 14 (j)	DR	NA	OK
D.5.11. Where applicable, does every CPA in aggregate meet the small-scale or microscale threshold criteria and remain within those thresholds throughout the crediting period of the CPA?	VVS Para. 151, 152, 196 EB65 Annex 3 Para 14 (k)	DR	The total capacity of the CPA is 2.0 MW, less 15 MW. The estimated maximum estimated emission reduction for type III is 39,911 tCO <sub>2</sub> e per year throughout the crediting period, less than 60kt CO <sub>2</sub> e per year. Thus, it remains within the SSC thresholds throughout the crediting period of the CPA.	OK
D.5.12. Where applicable, are the requirements for the debundling check, in case CPAs belong to small-scale (SSC) or microscale project categories included?	VVS Para. 155, 156, 196 EB54 Annex 13 EB65 Annex 3 Para 14 (l)	DR	No project satisfies both conditions (a) and (b) below by checking the UNFCCC website and onsite physical inspection:  (a) Has the same activity implementer as the proposed small scale CPA or has a coordinating or managing entity, which also manages a large scale PoA of the same technology/measure, and;  (b) The boundary is within 1 km of the boundary of the proposed small-scale CPA, at the closest point.	OK

D.5.13. Whether the criteria are verifiable, sufficiently objective, and comprehensive to permit the assessment of the inclusion of CPAs in the PoA?	EB65 Annex 3 Para 15, 16	DR	Yes. All criteria are verifiable, sufficiently objective, and comprehensive to permit the assessment of the inclusion of CPAs in the PoA.	OK
<b>D.6. Estimation of emission reductions</b>				
<b>D.6.1. Explanation of methodological choices</b>				

<p>D.6.1.1. Are the steps and equations applied to calculate baseline emissions in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p> <p>Yes. Each step and equation applied for BE<sub>y</sub> are correct and replicable.</p> <p>The AMS-III.G and AMS-I.D has been correctly applied to determine the baseline emission.</p> <p>For AMS-III.G, <math>BE_{y,1} = BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4}</math></p> <p>According to the Feasibility Study Report, it is estimated that not all potential methane emissions of a solid waste disposal site (<math>BE_{CH4,SWDS,y}</math>) can be captured from the landfill, but just a portion can be captured and utilised by the project.</p> <p><math>BE_{y,1} = p_{captured} \cdot BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4}</math></p> <p>And <math>BE_{CH4,SWDS,y}</math> is calculated as the tool “Emissions from solid waste disposal sites”: And the CPA belong to “Application A: The CDM project activity mitigates methane emissions from a specific existing SWDS”.</p> <p><math>BE_{CH4,SWDS,y} = \phi_y (1 - f_y) \cdot GWP_{CH4} \cdot (1 - OX) \cdot \frac{16}{12} \cdot F \cdot DOC_{f,y} \cdot MCF_y</math></p> <p><math>\cdot \sum_{x=1}^y \sum_j W_{j,x} \cdot DOC_j \cdot e^{-kj(y-x)} (1 - e^{-kj})</math></p> <p>For AMS-I.D, <math>BE_{y,2} = EG_{BL,y} \cdot EF_{CO2,grid,y}</math></p> <p>And the emission factor (<math>EF_{CO2,grid,y}</math>) is correctly calculated according to the procedures prescribed in “Tool to calculate the emission factor for an electricity system”.</p> <p><u>STEP 1. Identify the relevant electricity systems</u></p> <p>The power generated by the project displaces the equivalent electricity generated by the CCPG, which is the project electricity system. The CCPG is a large regional grid, which covers Henan province, Hubei province, Hunan province, Jiangxi province, Sichuan province, and Chongqing city. Also, CCPG connects and imports electricity from other two regional grids, North West Power Grid and the North China Power Grid which is defined as the connected electricity system.</p>	<p>OK</p>
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		<p>installed capacity in place during the selected period above, using plant efficiencies and emission factors of commercially available best technology in the national grid of China.</p> $EF_{grid,BM,y} = \frac{CAP_{Thermal,y}}{CAP_{Total,y}} \times EF_{Thermal,y}$ <p><u>STEP 6. Calculate the combined margin emissions factor</u></p> $EF_{grid,CM,y} = w_{OM} \times EF_{grid,OM,y} + w_{BM} \times EF_{grid,BM,y}$ <p>=0.7244 tCO2e/MWh.</p>	
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<p>D.6.1.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with the latest version of tool to calculate emission factor of electricity system (wherever applicable) and the underlying methodology?</p>	<p>EB 63 Annex 19</p>	<p>DR</p>	<p>CL#15 was raised requesting PP to clarify the identified relevant electricity system for the CPA 01 instead of general description. By reviewing the revised PDD, it is confirmed that the project electricity system and the connected electricity system are correctly described in the PDD. The power generated by the project displaces the equivalent electricity generated by the CCPG, which is the project electricity system. The CCPG is a large regional grid, which covers Henan province, Hubei province, Hunan province, Jiangxi province, Sichuan province, and Chongqing city. Also, CCPG connects and imports electricity from other two regional grids, North West Power Grid and the North China Power Grid which is defined as the connected electricity system. CL#15 was closed.</p>	<p>CL#15 OK</p>
<p>D.6.1.3. Are the steps and equations applied to calculate project emissions in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p>	<p>Yes. Each step and equation applied for P<sub>Ey</sub> are correct and replicable.</p> <p>According to the AMS-I.D and AMS-III.G, project emissions are to be calculated as:</p> $PE_y = PE_{power,y} + PE_{flare,y} + PE_{process,y}$ <p>(1) According to AMS-III.G, project emissions from electricity consumption are determined as per the procedures described in AMS-I.D. According to AMS-I.D, the net electricity supplied to the grid is the difference between the measured quantities of the grid electricity export and the import. Thus, the electricity consumed by the project is already considered in the net electricity supplied to the grid (EG<sub>BL,y</sub>). Therefore, PE<sub>power,y</sub> is 0.</p> <p>(2) Since the project generates electricity, internal electricity consumption is deducted from the gross generation, and only the net export is taken into account to calculate the emission reductions. And the CPA does not involve upgrading process, therefore, PE<sub>process,y</sub> = 0.</p> <p>(3) The CPA destroys part of the recovered landfill gas by flaring. Therefore, project emissions from flaring in year y (PE<sub>flare,y</sub>) are determined following the procedure described in the "Tool to determine project emissions from flaring gases containing</p>	<p>OK</p>

		<p>methane”.</p> $PE_{flare,y} = \sum_{h=1}^{8760} TM_{RG,h} (1 - \eta_{flare,h}) \times \frac{GWP_{CH4}}{1000}$ <p>For the CPA, the flare type is enclosed flare, and the flare efficiency is the default value. The flare efficiency in the hour <math>h</math> (<math>\eta_{flare,h}</math>) is:</p> <ul style="list-style-type: none"> <li>• 0% if the temperature in the exhaust gas of the flare (<math>T_{flare}</math>) is below 500 °C for more than 20 minutes during the hour <math>h</math>.</li> <li>• 50%, if the temperature in the exhaust gas of the flare (<math>T_{flare}</math>) is above 500 °C for more than 40 minutes during the hour <math>h</math>, but the manufacturer’s specifications on proper operation of the flare are not met at any point in time during the hour <math>h</math>.</li> <li>• 90%, if the temperature in the exhaust gas of the flare (<math>T_{flare}</math>) is above 500 °C for more than 40 minutes during the hour <math>h</math> and the manufacturer’s specifications on proper operation of the flare are met continuously during the hour <math>h</math>.</li> </ul> <p>And Mass flow rate of methane in the residual gas in the hour <math>h</math> (<math>TM_{RG,h}</math>) is calculated as:</p> $TM_{FG,h} = FV_{RG,h} \times fv_{CH4,RG,h} \times \rho_{CH4,n}$	
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<p>D.6.1.4. Are the steps and equations applied to calculate leakages in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p>	<p>According to AMS-III.G: <i>If the methane recovery technology is equipment transferred from another activity, leakage effects are to be considered.</i></p> <p>Similarly, according to AMS-I.D: <i>If the energy generating equipment is transferred from another activity, leakage is to be considered.</i></p> <p>There is no equipment transferred from another activity, thus there are no leakage emissions for the CPA.</p>	<p>OK</p>
<p>D.6.1.5. Are the steps and equations applied to calculate emission reductions in compliance with the requirements of selected baseline and monitoring methodology and replicable?</p>	<p>VVS Para. 96, 99 PS Para. 50</p>	<p>DR</p>	<p>Yes. Each step and equation applied for ER<sub>y</sub> are correct and replicable.</p> <p>1) According to AMS-III.G and AMS-I.D, the expected emission reductions achieved by the CPA are estimated ex-ante as:</p> $ER_{y,estimated} = BE_y - PE_y - LE_y$ <p>By combining equations applied, the ex-ante estimate of the emission reduction is:</p> $ER_{y,estimated} = p_{captured} \cdot BE_{CH4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH4} + EG_{BL,y} \cdot EF_{CO2,grid,y} - PE_{flare,y} - LE_y$ <p>2) According to AMS-III.G and AMS-I.D, the actual emission reduction achieved by the CPA will be calculated using the amount of methane recovered and destroyed/gainfully used by the project activity, calculated as:</p> $ER_{y,calculated} = (MD_y - MD_{reg,y}) \cdot GWP_{CH4} - PE_y - LE_y$ $MD_y = w_{CH4,y} \cdot D_{CH4,y} \cdot \sum_i LFG_{i,y}$ $\sum_i LFG_{i,y} = LFG_{total,y} = LFG_{flare,y} + LFG_{electricity,y}$ <p>In conclusion, actual emission reductions are calculated as:</p> $ER_{y,calculated} = (w_{CH4,y} \cdot D_{CH4,y} \cdot LFG_{total,y} - MD_{reg,y}) \cdot GWP_{CH4} + EG_{BL,y} \cdot EF_{CO2,grid,y} - PE_y - LE_y$	<p>OK</p>

D.6.1.6. Where there is an option between different equations or parameters, has the methodological choices for the project been explained, have they been properly justified and are they correct?	VVS Para. 97 PS Para. 51	DR	<p>Yes. The choices of equations and parameters are clearly justified and correct for the CPA.</p> <p>CL#14 was raised requesting PP to clarify how 0.75 of <math>\phi_y</math> and 1.0 of <math>MCF_y</math> in section D.6.1 of CPA-01 is determined for <math>BE_{CH_4,SWDS,y}</math> calculation. By reviewing the meteorological data issued by meteorological bureau of Shangrao City dated 23/11/2011, it is confirmed that the climate where the CPA located is wet condition. Thus, the default value of 0.75 is correctly chosen for the baseline emissions. During the onsite physical inspection and interviewing with the landfill owner, it is confirmed that the landfill site is well managed with cover material and mechanical compacting. Thus, the default value of 1.0 is correctly chosen. CL#14 was closed.</p>	CL#14 OK
D.6.1.7. Whether all ex-ante data sources and assumptions are appropriate and calculations are correct as applicable to the proposed project activity, and will result in an accurate or otherwise conservative estimate of the emission reductions?	VVS Para. 98 PS Para. 52	DR	<p>The data sources and assumptions are appropriate and calculations are correct.</p> <p><math>BE_{CH_4,SWDS,y}</math> is ex-ante calculated as the tool “<i>Emissions from solid waste disposal sites</i>”.</p> <p>Ex-ante option is used for the grid emission factor calculation based on the most recent data available at the time of submission of the CPA DD to the DOE for validation as per “<i>Tool to calculate the emission factor for an electricity system</i>”.</p> <p><math>PE_{flare,y}</math> is estimated as zero ex-ante which is a conservative estimation for ER calculation.</p>	OK
D.6.1.8. Are the ex-post monitored data estimated appropriated for calculation of ex-ante emission reductions?	VVS Para. 98	DR	<p>Yes. <math>BE_{CH_4,SWDS,y}</math> and <math>PE_{flare,y}</math> are required to be monitored ex-post and estimated ex-ante appropriately for calculation of emission reductions.</p> <p><math>BE_{CH_4,SWDS,y}</math> is ex-ante calculated correctly as the tool “<i>Emissions from solid waste disposal sites</i>”.</p> <p><math>PE_{flare,y}</math> is estimated as zero ex-ante which is a conservative estimation for ER calculation.</p>	OK
D.6.1.9. Whether a sampling plan is property developed?	PS Para. 53 EB65 Annex 2	DR	NA	OK

D.6.2. Data and parameters that are to be reported ex-ante				
D.6.2.1. Are all assumptions and data used are reasonable and listed in the CPA DD, including their references and sources?	VVS Para. 99	DR	Yes, all assumptions and data used are reasonable and listed in the CPA DD, including their references and sources: China Electric Power Yearbooks (2006, 2008-2010) Compilation of Electric Power Industry Statistics (2007-2009) China Energy Statistical Yearbooks (2010) 2006 IPCC Guidelines for National Greenhouse Gas Inventories 2011 Baseline Emission Factors for Regional Power Grids in China Approved FSR	OK
D.6.3. Ex-ante calculations of emission reductions				
D.6.3.1. Does the CPA-DD present a step-wise ex-ante emission reduction calculations for the CPA in accordance with the selected methodology(ies)?	PS Para. 50	DR	Each equation for ERs are justified in the section D.6.1 of the CPA DD. In summary, emission reductions are estimated ex-ante: $ER_{y,estimated} = p_{captured} \cdot BE_{CH\ 4,SWDS,y} - MD_{reg,y} \cdot GWP_{CH\ 4}$ $+ EG_{BL,y} \cdot EF_{CO2,grid,y} - PE_{flare,y} - LE_y$	OK
D.6.4. Summary of the ex-ante estimates of emission reduction				
D.6.4.1. Whether the summary of the ex-ante estimates of ERs is correct and consistent?		DR	Yes. ERs for each year of the crediting period, the annual average and the total GHG emission reductions over the fixed crediting period are correctly included.	OK
D.7. Application of the monitoring methodology and description of the monitoring plan				
D.7.1. Data and parameters to be monitored				

<p>D.7.1.1. Does the CPA-DD list all data and parameters to be monitored as per applied methodology(ies) and tool(s)?</p> <p>D.7.1.2. Does appropriate units, the measurement methods, and QA/QC procedures included in the CPA?</p>	<p>PS Para. 55, 56, 156 VVS Para. 132</p>	<p>DR</p>	<p>Yes. All parameters required by the applied methodologies and tools will be monitored during the crediting period. The units and appropriate measurement methods are correctly included. And calibration is included to ensure the quality of the monitoring data.</p>	<p>OK</p>
<p><b>D.7.2. Description of the monitoring plan</b></p>				

D.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	PS Para. 56, 156	DR	Yes. An organizational structure of the project is presented. The responsibilities of general manager, CDM manager, and operator are clearly described.	OK
D.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly defined and feasible?	PS Para. 56 VVS Para. 132	DR	Operators will take turns to work in the control centre 24 hours a day. They will be in charge of data supervision. F1-F6, E3, and gas analyzer are continuously measured and monitored data will be recorded and electronic archived once per hour by computer automatically.  CL#16 was raised requesting PP to clarify why F5 is not used for measuring $LFG_{electricity,y}$ in section D.7.1 of CPA-01 and please clarify why the sum of all reading of F2-F5 is the total LFG flow rate in section D.7.2. By validating the revised PDD, $LFG_{electricity,y}$ will be correctly monitored by flow meter F2-F5 and the sum of all reading of F2-F5 is the total LFG flow rate used for electricity generation. CAR#16 was closed.	<del>CL#16</del> OK
D.7.2.3. Does the QA/QC procedure included in the monitoring plan?	PS Para. 56 VVS Para. 132	DR	Yes. QA/QC is sufficiently described in the section D.7 of the CPA DD to ensure the proper implementation of the monitoring plan.  All the monitoring devices listed in section D.7.1 will be calibrated once a year by a qualified third party. When the data is not available from the main monitoring devices, the data measured by the back-up devices, if available, will be used.	OK
D.7.2.4. Does the uncertainty levels, methods and the associated accuracy level of measuring instruments to be used for various parameters and variables defined?	PS Para. 56	DR	Yes. The accuracy for flow meters is 1.0, the accuracy for gas analyzer is 2%, the accuracy for electricity meters is 1.0 or more accurate, the accuracy for thermocouple is at least 1°C.	OK
D.7.2.5. Does the calibration frequency for the measuring equipments defined?	PS Para. 56	DR	Yes. The calibration frequency is once a year.	OK
D.7.2.6. Does sampling plan included, where applicable?	PS Para. 155	DR	NA. Sampling plan is not required.	OK
D.7.2.7. If applicable, does Appendix 5 provide useful information enabling a better understanding of the envisioned monitoring provisions?		DR	NA. No further information included in the appendix 5.	OK



#### E. Approval and authorization

E.1. Whether the LoA(s) from each Party that wishes to be involved in the CPA, is available at the time of submitting the CPA-DD to SGS?	EB55 Annex 38 Para 9, 10	DR	Yes. LoAs has been provided.	OK
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### A.3 Annex 3: Overview of Findings

#### Findings Overview PoA-DD

	CARs	CLs	FARs
Total Number raised	10	5	0

Date:	26/04/2012		Raised by:	Assessment team	
Type:	CAR	Number:	CAR #1	Reference:	AU4 Table 1-1
<b>Lead Assessor Comment:</b>					
The LoAs from the involved two Parties shall be provided.					
<b>Project Participant Response:</b>				<b>Date:</b> 25/12/2012	
LoAs from the involved two Parties have be provided					
<b>Documentation Provided by Project Participant:</b>					
Chinese LoA and Germany LoA					
<b>Information Verified by Lead Assessor:</b>					
Both LoAs were verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 25/12/2012	
<p>The Chinese LoA dated 12/2012 has been provided to the assessment team by the PP. By reviewing the China DNA website, it is validated that:</p> <ul style="list-style-type: none"> <li>(a) China approved the Kyoto Protocol to the UNFCCC on 30/08/2002 and is a Party to the Kyoto Protocol;</li> <li>(b) The PoA and the 1st CPA of Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities comply with the permission requirements provided for in the Measures for Operation and Management of CDM project in China and assists China in achieving sustainable development;</li> <li>(c) Henan BCCY New Power Industry Co., Ltd is authorized as China's participant to voluntarily participate in and carry out the PoA as the Coordinating/Managing Entity;</li> <li>(d) Hennan BCCY New Power Industry Co., Ltd. is permitted to transfer CERs from 1<sup>st</sup> CPA (CPA-01: Shangrao MSW landfill site LFG recovery to power project) of the PoA to First Climate Markets AG which is authorized by the Government of Germany.</li> </ul> <p>The German LoA dated 28/11/2012 has been provided by the PP and available on the German JI and CDM Project Data Base. It is validated that:</p> <ul style="list-style-type: none"> <li>(a) The Germany is the party to the Kyoto Protocol;</li> <li>(b) The Germany participates voluntarily in the CDM and the notified project;</li> <li>(c) The Germany grants its approval of the project activity "Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities" within the framework of CDM;</li> <li>(d) First Climate Markets AG is authorised to participate in this project.</li> </ul> <p>In accordance with Para. 38-49 VVS version 03.0, it is confirmed by the assessment team that the German LoA is unconditional and authentic. CAR#1 was closed</p>					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 25/12/2012 [Shute LI]	

Date:	26/04/2012		Raised by:	Assessment team	
Type:	CAR	Number:	CAR #2	Reference:	AU4 Table 1-4
<b>Lead Assessor Comment:</b>					
Please provide the MoC statement of the PoA.					



<b>Project Participant Response:</b>	<b>Date:</b> 25/12/2012
The MoC of the PoA has been provided	
<b>Documentation Provided by Project Participant:</b>	
MoC	
<b>Information Verified by Lead Assessor:</b>	
MoC dated 13/12/2012	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 25/12/2012
MoC dated 13/12/2012 has been validated by the assessment team. Related information is consistent with Annex 1 of the PoA version 3.2. By verifying the website of the First Climate Markets AG, it is confirmed that the primary and alternate signed personal are from the management board. The primary signed personal of the CME in the MoC is same as that in the contract signed with SGS. And the alternate signed personal of the CME in the MoC is the key contact during signing the contract with SGS and project manager of this PoA. It is confirmed that MoC template version 02.1 is correctly applied and in compliance with the PS. Thus CAR #2 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 25/12/2012 [Shute LJ]

Date:	26/04/2012	Raised by:	Assessment team		
Type:	CL	Number:	CL #3	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
It is said that LFG capture and usage is a process to produce electricity (or other forms of useful energy) in section A.2 of part I. However, only electricity is mentioned in the subsequent section of the PoA. Please clarify this issue.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
In general, landfill Gas (LFG) capture and usage is a process capable of making use of the biogas spontaneously generated from the organic fraction of waste in landfills to produce electric power (or other forms of useful energy). The core idea of Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities is to promote the implementation of profitable LFG capture and usage to power projects in China.					
<b>Documentation Provided by Project Participant:</b>					
PoA-DD version 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The technology applied in the PoA was verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
The core idea of the PoA is clearly described as LFG capture and usage to power in the PoA DD version 3.0. CL#3 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LJ]	

Date:	26/04/2012		Raised by:	Assessment team		
Type:	CAR	Number:	CAR#4		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
According to para 31-32 of PS version 01, please clarify how the PoA will reduce GHG emission and contribute to the sustainable development, what the scenario prior to the implementation of the proposed PoA is, and which sectoral scope and type of the PoA belong to.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		

<p>The following issues have been clarified in Section A, Part I of PoA-DD version 3.0: Each CPA under the PoA will reduce the greenhouse gas (GHG) emissions by destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from grid dominated by fossil fuel power plant. The PoA will contribute to the sustainable development in the host country, not only it because of avoiding global warming, but also because it increases the availability of electricity from renewable sources. The PoA will minimize the explosion risk at the landfill site, remove the terrible odours and improve the air quality of local area by destroying LFG. In addition, the PoA will create job opportunities through the construction and operation of the LFG capture system and the power units. The existing scenario prior to the implementation of PoA is that the huge potential of LFG use in China is released to atmosphere without utilization and the equivalent electricity is from the grid of China. The types and categories of the PoA are Type III – Other project activities, sectoral scope 13: Waste handling and disposal and Type I – Renewable energy projects, sectoral scope 01: Energy Industries (renewable / non-renewable sources).</p>	
<b>Documentation Provided by Project Participant:</b>	
PoA-DD version 3.0, dated on 01/08/2012	
<b>Information Verified by Lead Assessor:</b>	
The sustainable development, the scenario, the sectoral scope, and type of the PoA in the PoA DD version 3.0 were verified.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
It is confirmed that the requirement in the para 31-32 of PS version 01 has been correctly reported in the PoA DD version 3.0. CAR#4 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LI]

Date:	26/04/2012		Raised by:	Assessment team	
Type:	CL	Number:	CL #5	Reference:	AU4 Table 2
Lead Assessor Comment:					
For eligibility criteria No. 8 in section B.2 of part I, please clarify whether electricity is exported to consumer directly or via the grid.					
Project Participant Response:				Date: 01/08/2012	
The electricity is exported to the grid or to identify consumer via grid. It has been clarified in eligibility criteria No. 8 in section B.2 of part I,					
Documentation Provided by Project Participant:					
PoA-DD version 3.0, dated on 01/08/2012					
Information Verified by Lead Assessor:					
The eligibility criteria No. 8 in section B.2 of part I in the PoA DD version 3.0 was verified.					
Reasoning for not Acceptance or Acceptance and Close Out:				Date: 11/08/2012	
It is clearly reported in the PoA DD version 3.0 that the CPA exports electricity to the grid or to identified consumer via grid which would buy electricity from the grid, which is incompliance with the AMS-I.D. version 17.0. CL#5 was closed.					
Acceptance and Close out by Lead Assessor:				Date: 11/08/2012 [Shute LI]	

Date:	26/04/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #6		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
For eligibility criteria No. 9 in section B.2 of part I, please clarify why sampling requirements are not applicable.						
<b>Project Participant Response:</b>					<b>Date:</b> 01/08/2012	
Each CPA under the PoA will utilize monitoring rather than sampling for the determination of parameter values for calculating emission reductions. Therefore, sampling requirements are not applicable.						
<b>Documentation Provided by Project Participant:</b>						
PoA-DD version 3.0, dated on 01/08/2012						
<b>Information Verified by Lead Assessor:</b>						

The eligibility criteria No. 9 in section B.2 of part I in the PoA DD version 3.0 was verified.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
It is clearly reported in the PoA DD version 3.0 that each CPA under the PoA will utilize monitoring rather than sampling for the determination of parameter values for calculating emission reductions. CL#6 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LJ]

Date:	26/04/2012		Raised by:	Assessment team	
Type:	CAR	Number:	CAR #7	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
According to the PoA, each CPA will utilize LFG to generate electricity and deliver the electricity to the grid. Please clarify why “#1 only LFG capture and flaring” in the section B.3 of part I is the possible combinations of technologies/measures and methodologies.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
Technology of “#1 only LFG capture and flaring” has been removed from PoA-DD.					
<b>Documentation Provided by Project Participant:</b>					
PoA-DD version 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The section B.3 of part I in the PoA DD version 3.0 was verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
It has been revised in the PoA DD version 3.0 that each CPA will utilize LFG to generate electricity and deliver to the grid, with possible partial flaring. This is the only possible combination of technologies/measures and the AMS-III.G and AMS-I.D. is the only possible combination, which is in compliance with the Annex 3 EB65 and no cross effect needed to be assessed as per Annex 13 EB66. CAR#7 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]	

<b>Date:</b>	26/04/2012	<b>Raised by:</b>	Assessment team		
<b>Type:</b>	CAR	<b>Number:</b>	CAR #8	<b>Reference:</b>	AU4 Table 2
<b>Lead Assessor Comment:</b>					
Please clarify whether a management system is developed as per para 17 of annex 3 EB65, such as definition of roles and responsibilities of personnel involved, records and documentation control process for each CPA under the PoA, measures for continuous improvements of PoA management system.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	

The management system has clarified as below:

*For the role and responsibilities of personnel*

PoA Manager is the leader of CDM department of CME. He/She is responsible for overall issues of PoA and training to ensure that staff of CME and CPA implementers has the ability to deal with the tasks relating to CDM issue.

Assistant(s) of PoA Manager is the staff(s) from CME whose responsibilities are:

- collecting and archiving data and documents of CPA;
- preparing monitoring report;
- including CPA into PoA

CDM manager of each CPA is the staff from CPA implementer. He/She is specifically responsible for training, checking the daily operation, reporting forms and archiving emergency situation reports.

*For the records and documentation control process*

Each CPA will be managed by dedicated staff, with an internal organization that will ensure smooth operation of the LFG capture and usage plant, from the technical and administrative point of view. The CME will ensure that a homogenous reporting practice is adopted in all CPAs and will collect centrally all the data needed for the emission reductions calculation.

*For the continuous improvements of PoA management system*

Every year, the PoA management will summarize the work of the PoA and share the experience in the CDM department and update the management system, if possible. The external expert of CDM will be consulted regularly for the management of PoA.

**Documentation Provided by Project Participant:**

PoA-DD version 3.0, dated on 01/08/2012  
CDM management system

**Information Verified by Lead Assessor:**

The PoA management system in the PoA DD version 3.0 was verified.

**Reasoning for not Acceptance or Acceptance and Close Out:**

**Date:** 11/08/2012

The roles and responsibilities of personnel involved, the records and documentation control process, and the continuous improvements of PoA management system are clearly defined in the PoA DD version 3.0 and possible for implementation by CME. CAR#8 was closed.

**Acceptance and Close out by Lead Assessor:**

**Date:** 11/08/2012 [Shute LI]

Date:	26/04/2012		Raised by:	Assessment team		
Type:	CAR	Number:	CAR #9	Reference:	AU4 Table 2	
<b>Lead Assessor Comment:</b>						
Please clarify whether the local stakeholder consultation is performed at the PoA level or CPA level because of inconsistency in section F of the part I. And please justify the choice of level at which the local stakeholder consultation is undertaken.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
The local stakeholder consultation is performed at the CPA level, and the inconsistency in section F of the part I has been corrected. The boundary of PoA is too large to perform local stakeholder consultation process properly. The local stakeholder consultations are more suitable for local resident to express their opinions, because people who are closer to the site where the project are to be implemented can have a more specific understanding of the details of the project and related impact. Therefore, the local stakeholder consultation process is selected to perform at CPA level.						
<b>Documentation Provided by Project Participant:</b>						
PoA-DD version 3.0, dated on 01/08/2012						
<b>Information Verified by Lead Assessor:</b>						
The section F of the part I was verified.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		

The local stakeholder consultation will be performed at the CPA level and consistency are kept in the PoA DD version 3.0. The local stakeholder consultations at CPA level are more suitable for local resident to express their opinions and have a more specific understanding of the details of the project and related impact. CAR#9 was closed.

**Acceptance and Close out by Lead Assessor:** **Date:** 11/08/2012 [Shute LJ]

Date:	26/04/2012	Raised by:	Assessment team
Type:	CL	Number:	CL #10
		Reference:	AU4 Table 2

**Lead Assessor Comment:**  
For section B.4 of the part I, please clarify how the 0.45% of landfill sites (excluding the landfill sites related with CDM projects) flaring and utilizing LFG in China is determined.

**Project Participant Response:** **Date:** 01/08/2012  
According to "China Development Report on Urban Domestic Refuse Disposal Industry 2010", by the end of 2009 in China there were 447 domestic landfill sites. As per CDM pipeline issued by 01/11/2011, there are 61 plants generating electricity with utilization LFG started CDM validation, and 4 of them are validation terminated. Only 2 of the 4 validation terminated projects are totally and partially in operation<sup>2</sup>. Thus, there were only two landfill sites flared and utilized LFG, accounting for about 0.51%, among 390 landfill sites (excluding the landfill sites related with CDM projects) in China by the end of 2009.

**Documentation Provided by Project Participant:**  
PoA-DD version 3.0, dated on 01/08/2012  
China Development Report on Urban Domestic Refuse Disposal Industry 2010  
CDM pipeline issued by 01/11/2011

**Information Verified by Lead Assessor:**  
The landfill sites statistic in China, the registered LFG project in China, the terminated LFG project in website are validated from public available information.

**Reasoning for not Acceptance or Acceptance and Close Out:** **Date:** 11/08/2012

By validating the "China Development Report on Urban Domestic Refuse Disposal Industry 2010", the CDM pipeline issued by 01/11/2011, and published information from website, it is confirmed that the correct one is 0.51% instead of 0.45%. Correction has been done in the PoA DD version 3.0. CL#10 was closed.

**Acceptance and Close out by Lead Assessor:** **Date:** 11/08/2012 [Shute LJ]

Date:	26/04/2012	Raised by:	Assessment team
Type:	CAR	Number:	CAR #11
		Reference:	AU4 Table 2

**Lead Assessor Comment:**  
For eligibility criteria No. 2 in section B.5 of the part II, please clarify how a CPA already included in this PoA will be not included in this PoA again.

**Project Participant Response:** **Date:** 01/08/2012  
For eligibility criteria No. 2 in section B.5 of the part II, the CME will ensure that the CPA is not identical with another CPA already included in this PoA by using geographical coordinates.

**Documentation Provided by Project Participant:**  
PoA-DD version 3.0, dated on 01/08/2012

**Information Verified by Lead Assessor:**  
The eligibility criteria No. 2 in section B.5 of the part II was verified.

**Reasoning for not Acceptance or Acceptance and Close Out:** **Date:** 11/08/2012

The CPA is not identical with another CPA already included in this PoA by using geographical coordinates, which has been included in the PoA DD version 3.0. CAR#11 was closed.

**Acceptance and Close out by Lead Assessor:** **Date:** 11/08/2012 [Shute LJ]

<sup>2</sup> According to CDM pipeline, the validation of 4 projects, Xuzhou Landfill Gas Utilisation Project, Xining Landfills Gas Recovery Project, Huai'an Wang Yuan Landfill Gas Utilisation Project, and Baishan Landfills Gas Recovery Project, was terminated. The first two projects are in operation.

Xuzhou Landfill Gas Utilisation Project and Xining Landfills Gas Recovery Project have been put into operation:

<http://www.xuzhoujob.com/News/3200942085210.html>

[http://www.qhfgw.gov.cn/gzgf/fgwwj/t20100824\\_345399.shtml](http://www.qhfgw.gov.cn/gzgf/fgwwj/t20100824_345399.shtml)

Date:	26/04/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #12		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
For eligibility criteria No. 4 in section B.5 of part II, please clarify which document is used for determining the start date.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
the start date must be indicated as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc.						
<b>Documentation Provided by Project Participant:</b>						
PoA-DD version 3.0, dated on 01/08/2012						
<b>Information Verified by Lead Assessor:</b>						
The eligibility criteria No. 4 in section B.5 of part II was verified.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		
It has been clearly reported in the PoA DD version 3.0 that the start date is defined as the earliest date of real action, such as the main equipment purchase contract, construction contract and construction start report, etc. instead of just list these documents in PoA DD version 2.0. CL#12 was closed.						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]		

Date:	26/04/2012	Raised by:	Assessment team		
Type:	CAR	Number:	CAR #13	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
Please indicate in the diagram the emissions sources and GHGs included in the project boundary in the section B.3 of Part II and the data and parameters to be monitored according to annex 13 EB66.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
The emissions sources of CH <sub>4</sub> and CO <sub>2</sub> has been added in diagram of boundary. The data and parameters to be monitored and corresponding monitoring meters are shown in Figure 6 Monitoring System in section B.7.2.					
<b>Documentation Provided by Project Participant:</b>					
PoA-DD version 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The diagram of project boundary and the diagram of monitoring system are verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
The emissions sources of CH <sub>4</sub> and CO <sub>2</sub> has been correctly included in the diagram of project boundary and the monitoring parameter has been correctly included in the diagram of monitoring system in the PoA DD version 3.0. CAR#13 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]	

Date:	26/04/2012		Raised by:	Assessment team		
Type:	CAR	Number:	CAR #14		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
Please provide a transparent ex ante calculation of project emissions, baseline emissions, and leakage emissions expected during the crediting period in section B.6.3 of part II, applying all relevant equations provided in the selected methodologies as per annex 13 EB66.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		



Calculation of project emissions, baseline emissions and Leakage emissions has been added in section B.6.3 as below:

**Baseline emissions**

$$BE_y = P_{captured} \cdot BE_{CH_4, SWDS, y} - MD_{reg, y} \cdot GWP_{CH_4} + EG_{BL, y} \cdot EF_{CO_2, grid, y}$$

$$BE_{CH_4, SWDS, y} = \varphi_y (1 - f_y) \cdot GWP_{CH_4} \cdot (1 - OX) \cdot \frac{16}{12} \cdot F \cdot DOC_{f, y} \cdot MCF_y \cdot \sum_{x=1}^y \sum_j W_{j, x} \cdot DOC_j \cdot e^{-kj(y-x)} (1 - e^{-kj})$$

**Project emissions**

$$PE_y = PE_{power, y} + PE_{flare, y} + PE_{process, y}$$

$$PE_{power, y} = 0$$

$$PE_{flare, y} = \sum_{h=1}^{8760} TM_{RG, h} (1 - \eta_{flare, h}) \times \frac{GWP_{CH_4}}{1000}$$

$$PE_{process, y} = 0$$

**Leakage emissions**

$$LE_y = 0$$

**Emission Reductions**

$$ER_{y, estimated} = BE_y - PE_y - LE_y$$

**Documentation Provided by Project Participant:**

PoA-DD version 3.0, dated on 01/08/2012

**Information Verified by Lead Assessor:**

Ex ante calculation of project emissions, baseline emissions, and leakage emissions in section B.6.3 of part II was verified.

**Reasoning for not Acceptance or Acceptance and Close Out:**

**Date:** 11/08/2012

Ex ante calculation of project emissions, baseline emissions, and leakage emissions have been correctly reported in section B.6.3 of part II of PoA DD version 3.0 and complying with the methodologies and tools applied in the PoA. CAR#14 was closed.

**Acceptance and Close out by Lead Assessor:**

**Date:** 11/08/2012 [Shute LJ]

Date:	11/06/2012	Raised by:	Assessment team		
Type:	CAR	Number:	CAR #15	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
The start date of PoA in section D.1 of part I is determined as GSC date of the PoA while 28/12/2011 is not the GSC date. Please clarify this issue.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
The start date of the PoA has been corrected as 24/01/2012 (first date of PoA DD published for Global Stakeholder Consultation (GSC))					
<b>Documentation Provided by Project Participant:</b>					
PoA-DD version 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
Start date of PoA was verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
It is confirmed that the first GSC date of the PoA is 24/01/2012 by reviewing the UNFCCC website. The GSC date of the PoA is defined as the start date of PoA which is in compliance with the definition of start date in the Glossary of CDM Term version 06. CAR#15 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LJ]	



## Findings Overview CPA-DD

### Findings Overview Summary

	CARs	CLs	FARs
<b>Total Number raised</b>	6	10	0

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CAR	Number:	CAR #1	Reference:	AU4 Table 1-1
<b>Lead Assessor Comment:</b>					
According to para 31-32 of PS version 01, please clarify how the CPA will reduce GHG emission and contribute to the sustainable development, and which sectoral scope and type of the CPA belong to in section A of CPA DD.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
The following issues have been clarified in Section A of CPA-DD version 3.0: The CPA will reduce the greenhouse gas (GHG) emissions by destroying methane in the LFG generated from landfills and replacing the equivalent amount of electricity from grid dominated by fossil fuel power plant. The CPA will contribute to the sustainable development in the host country, not only it because of avoiding global warming, but also because it increases the availability of electricity from renewable sources. The CPA will minimize the explosion risk at the landfill site, remove the terrible odours and improve the air quality of local area by destroying LFG. In addition, the CPA will create job opportunities through the construction and operation of the LFG capture system and the power units. The types and categories of the CPA are Type III – Other project activities, sectoral scope 13: Waste handling and disposal and Type I – Renewable energy projects, sectoral scope 01: Energy Industries (renewable / non-renewable sources), which are the same as that of the PoA.					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (generic) ver 3.0, dated on 01/08/2012 CPA DD (CPA 01) ver 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The sustainable development, the scenario, the sectoral scope, and type of the CPA in the PoA DD version 3.0 were verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
It is confirmed that the requirement in the para 31-32 of PS version 01 has been correctly reported in the PoA DD version 3.0. CAR#1 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]	

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CAR	Number:	CAR #2	Reference:	AU4 Table 1-2
<b>Lead Assessor Comment:</b>					
It is stated that the LFG Flare system is optional in section A.5 of CPA-01 and subsequent sections while it is described that extra LFG will be destroyed by enclosed flare in section A.3 of CPA-01. Please clearly clarify whether LFG flare system exists or not.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
Extra LFG will be destroyed by enclosed flare. "optional" in section A.5 of CPA-01 has been removed.					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The technology applied in the CPA was verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
The CPA adopts the enclosed flare and keeps consistent in the CPA version 3.0. CAR#2 was closed.					

<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LJ]
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Date:	10/06/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #3		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
In the section A.4 of the generic CPA and CPA-01, the role of Henan BCCY New Power Industry Co., Ltd. ("BCCY") is not consistent. Please clarify this issue.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
In the section A.4 of the generic CPA, the role of Henan BCCY New Power Industry Co., Ltd. ("BCCY") has been corrected as "the coordinating/managing entity ("CME")" to keep consistent with CPA-01.						
<b>Documentation Provided by Project Participant:</b>						
CPA DD (generic) ver 3.0, dated on 01/08/2012						
<b>Information Verified by Lead Assessor:</b>						
The role of BCCY in the generic CPA version 3.0 and CPA-01 version 3.0 was verified.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		
It is confirmed that the role of BCCY is CME and consistent in the generic CPA version 3.0 and CPA-01 version 3.0. CL#3 was closed.						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LJ]		

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CAR	Number:	CAR #4	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
For footnote 1 in page 2, Figure B.4 Monitoring System is not existed. Please check the figure number within the whole CPA DD.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
The figure in CPA DD (generic and CPA 01) has been renumbered. For footnote 1, "Figure B.4" has been corrected as "Figure 5"					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (generic) ver 3.0, dated on 01/08/2012					
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The figure numbers in the CPA were verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
The mistake has been corrected in the CPA version 3.0. CAR#4 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LJ]	

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CL	Number:	CL #5	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
For start date of the CPA-01 in section A.8.1, please clarify whether the expected date is consistent with the actual situation. For start date of the generic CPA, please clarify how the start date will be determined.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
Actually, the CPA-01 has not started yet, therefore the start date of the CPA-01 in section A.8.1 has been revised as 01/09/2012 (expected) the start date must be indicated as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc.					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (generic) ver 3.0, dated on 01/08/2012 CPA DD (CPA 01) ver 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The start date was determined as the earliest date at which of a real action, such as the main equipment purchase contract, construction contract and construction start report, etc.					

<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
During the onsite inspection, it is confirmed that the CPA 01 has not start yet. Thus, it is later than the GSC date. And the definition of the start date has been clearly described in the generic CPA. CL#5 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LJ]

Date:	10/06/2012		Raised by:	Assessment team	
Type:	CL	Number:	CL #6		Reference: AU4 Table 2

<b>Lead Assessor Comment:</b>	
For section A.13 of CPA DD, please clarify how the implementer is aware that the CPA will be included in the PoA. Please provide related evidence.	
<b>Project Participant Response:</b>	<b>Date:</b> 01/08/2012
The implementer is aware that this CPA will be subscribed to the PoA "Henan BCCY New Power Industry Co., Ltd. LFG recovery to power Programme of Activities", documented by a specific statement from CPA implementer.	
<b>Documentation Provided by Project Participant:</b>	
CPA DD (generic) ver 3.0, dated on 01/08/2012 CPA DD (CPA 01) ver 3.0, dated on 01/08/2012 statement of awareness of inclusion in PoA	
<b>Information Verified by Lead Assessor:</b>	
Statement of awareness of inclusion in PoA dated 12/06/2012 was verified.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
It is confirmed that the implementer voluntarily participates in the PoA and appoints BCCY as CME by reviewing the statement. CL#6 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LJ]

Date:	10/06/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #7		Reference:	AU4 Table 2

<b>Lead Assessor Comment:</b>	
According to the section B.1 of CPA-01, mitigation measures during construction period will be implemented. Please clarify what kind of mitigation measure is taken for air pollution.	
<b>Project Participant Response:</b>	<b>Date:</b> 01/08/2012
During the construction period, wastewater, waste gas and dust, noise and solid waste pollution, etc. caused by the CPA will be treated according to the measures in the EIA, and there will be no significant impact on the environment. In order to mitigate the air pollution during the construction period, the following measures will be taken: spray some water on the floor to avoid the dust being blown, take sealing or other protective measures to avoid the dust diffuse in the transportation, loading and unloading of substances and enhance the environmental protection education to the staffs working for the construction. For mitigation the waste water pollution, reduce the materials scattering, construct a wall of 50cm high around the bulk material yard to prevent the washing of raining and build a simple sedimentation tank to separate the sand in the waste water. The solid waste from the construction site will be sent to the solid waste disposal site or other appointed place regularly. For reducing the noise pollution, the construction company will enhance the management of noise source, such as arranging reasonable schedule for the high-noise construction time, installing portable sound insulating screen closed to the high-noise equipment.	
<b>Documentation Provided by Project Participant:</b>	
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012 EIA dated 10/2011	
<b>Information Verified by Lead Assessor:</b>	
The mitigation measure for air pollution has been validated against the EIA report.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012

By reviewing the CPA 01 and EIA report, it is confirmed that the mitigation measures for air pollution has been clearly described as per EIA. And the mitigation measure for wastewater, noise, and solid waste pollution also has been clearly described as per EIA. The EIA has been approved and there will be no significant impact on the environment. CL#7 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LJ]

Date:	10/06/2012		Raised by:	Assessment team	
Type:	CAR	Number:	CAR #8		Reference: AU4 Table 2

<b>Lead Assessor Comment:</b>
In the section C of CPA DD, the questions and the summary of comments are not fully consistent. Please clarify this issue.

<b>Project Participant Response:</b>	<b>Date:</b> 01/08/2012
In the Section C of CPA DD, the questions and the summary of comments have been revised as follows:	

Questions;

1. What do you think about the environment of surrounding areas?
2. Has the electricity supply to your house often been cut off?
3. Do you hope the construction of a LFG power generation plant near your house?
4. Do you know the CPA will be build near you house?
5. Do you think the implementation of the CPA will cause positive effect on living of local residents?
6. Do you think the implementation of the CPA will cause negative effect?
7. How do you weight the pros and cons of the construction of LFG power project?
8. Do you support the construction of LFG power project?
9. any comments and suggestion?

Summary in CPA 01:

1. About 8% of questioned people think the environment of surrounding areas is bad, and others think it is acceptable and good.
2. About 4% of questioned people said the electricity often been cut off.
3. All question people hope the construction of a LFG power generation plant near their house.
4. All question people know the CPA will be build near their house.
5. About 84% and about 72% of questioned people think the implementation of the CPA will mitigate air pollution and lack of electricity, respectively.
6. 0% of questioned people think the negative effects, such as noise, waste water, and destruction of natural environment, will be caused by the implementation the CPA.
7. About 96% of questioned people think the advantages of the construction of LFG power project outweigh its disadvantages
8. About 99% of questioned people support the construction of the CPA, and the others abstained.
9. no further comments and suggestions

Summary in CPA (generic):

1. About XX% of questioned people think the environment of surrounding areas is bad, and others think it is acceptable and good.
2. About XX% of questioned people said the electricity often been cut off.
3. XX% question people hope the construction of a LFG power generation plant near their house.
4. XX% question people know the CPA will be build near their house.
5. About XX% and about XX% of questioned people think the negative effect will be caused by the implementation of the CPA.
6. XX% of questioned people think the noise during the implementation of the project will affect the living quality of residents living nearby to the CPA.
7. About XX% of questioned people think the advantages of the construction of LFG power project outweigh its disadvantages
8. About XX% of questioned people support the construction of the CPA, and the others abstained.
9. further comments and suggestions

<b>Documentation Provided by Project Participant:</b>
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CPA DD (generic) ver 3.0, dated on 01/08/2012	
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012	
<b>Information Verified by Lead Assessor:</b>	
The question and response in the questionnaire were validated and local residents were also interviewed.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
By interviewing with the local residents, it is confirmed that the questionnaires were sent to local residents during the stakeholder meeting on 25/10/2011. The questions and responses in the CPA version 3.0 were described in accordance with the questionnaires. CAR#8 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LI]

Date:	10/06/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #9		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
Please specify the version of related methodologies and tools in section D.1 of generic CPA.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
The version of related methodologies and tools in section D.1 of generic CPA has been added.						
<b>Documentation Provided by Project Participant:</b>						
CPA DD (generic) ver 3.0, dated on 01/08/2012						
<b>Information Verified by Lead Assessor:</b>						
The version of related methodologies and tools in the generic CPA were verified.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		
The version of methodologies and tools applied in the PoA has been correctly included in the generic CPA and valid. CL#9 was closed.						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]		

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CAR	Number:	CAR #10	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
According to annex 17 EB66, please clarify whether the CPA is located within the geographical boundary of the proposed PoA, and indicate in the diagram the emissions sources and GHGs included in the project boundary and the data and parameters to be monitored in section D.3.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
The description of “Shangrao is a city within China, thus the CPA boundary is within the geographical boundary of China.” has been added in CPA DD (CPA 01). The description of “The CPA is located in the name of city, thus the CPA boundary is within the geographical boundary of China.” has been added in CPA DD (generic). The emissions sources of CH4 and CO2 has been added in diagram of boundary of CPA DD (CPA 01 and generic). The data and parameters to be monitored and corresponding monitoring meters are shown in Figure 5 Monitoring System in section B.7.2.					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (generic) ver 3.0, dated on 01/08/2012 CPA DD (CPA 01) ver 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The geographical boundary of the CPA, the emissions sources, and GHGs in the section D.3 of CPA DD were validated.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
The CPA 01 is located in Shangrao city of China, which is within the geographical boundary of PoA. And the boundary of each CPA will be within the geographical boundary of the PoA. The emissions sources of CH4 and CO2 have been added in Figure 3 diagram of boundary of the CPA version 3.0. The data and parameters to be monitored and corresponding monitoring meters are shown in Figure 5 Monitoring System in section B.7.2. CAR#10 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]	



Date:	10/06/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #11		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
For section D.4 of CPA-01, please clarify how the 0.45% of landfill sites (excluding the landfill sites related with CDM projects) flaring and utilizing LFG in China is determined.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
According to “China Development Report on Urban Domestic Refuse Disposal Industry 2010”, by the end of 2009 in China there were 447 domestic landfill sites. As per CDM pipeline issued by 01/11/2011, there are 61 plants generating electricity with utilization LFG started CDM validation, and 4 of them are validation terminated. Only 2 of the 4 validation terminated projects are totally and partially in operation. Thus, there were only two landfill sites flared and utilized LFG <sup>3</sup> , accounting for about 0.51%, among 390 landfill sites (excluding the landfill sites related with CDM projects) in China by the end of 2009.						
<b>Documentation Provided by Project Participant:</b>						
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012 China Development Report on Urban Domestic Refuse Disposal Industry 2010 CDM pipeline issued by 01/11/2011						
<b>Information Verified by Lead Assessor:</b>						
The landfill sites statistic in China, the registered LFG project in China, the terminated LFG project in website are validated from public available information.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		
By validating the “China Development Report on Urban Domestic Refuse Disposal Industry 2010”, the CDM pipeline issued by 01/11/2011, and published information from website, it is confirmed that the correct one is 0.51% instead of 0.45%. Correction has been done in the PoA DD version 3.0. CL#10 was closed.						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]		

Date:	10/06/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #12		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
For the timeline of the key CDM events of CPA-01, please clarify event of investment decision of the CPA.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
The decision on project investment and CDM application was made by board on 06/09/2012.						
<b>Documentation Provided by Project Participant:</b>						
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012						
Board meeting minutes for CDM decision						
<b>Information Verified by Lead Assessor:</b>						
The Board meeting minutes for CDM decision dated 06/09/2010 was validated.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		
The FSR has been confirmed as the basis of the decision to proceed with the investment in the CPA 01. The period of time between the finalization of the FSR (08/2010) and the investment decision (06/09/2010) is sufficiently short and it is unlikely that the input values would have materially changed. And the FSR was approved by the Development & Reform Commission (DRC) of Jiangxi Province on 12/06/2012. CL#12 was closed.						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]		

Date:	10/06/2012		Raised by:	Assessment team	
Type:	CAR	Number:	CAR #13		Reference: AU4 Table 2

<sup>3</sup> According to CDM pipeline, the validation of 4 projects, Xuzhou Landfill Gas Utilisation Project, Xining Landfills Gas Recovery Project, Huai'an Wang Yuan Landfill Gas Utilisation Project, and Baishan Landfills Gas Recovery Project, was terminated. The first two projects are in operation.

Xuzhou Landfill Gas Utilisation Project and Xining Landfills Gas Recovery Project have been put into operation

<http://www.xuzhoujob.com/News/3200942085210.html>

[http://www.qhfgw.gov.cn/gzgf/fqwwj/t20100824\\_345399.shtml](http://www.qhfgw.gov.cn/gzgf/fqwwj/t20100824_345399.shtml)

<b>Lead Assessor Comment:</b>	
FSR is the basis for investment analysis of CPA-01 while the FSR approval has not been provided. Please clarify this issue.	
<b>Project Participant Response:</b>	<b>Date:</b> 01/08/2012
FSR was approved on 12/06/2012	
<b>Documentation Provided by Project Participant:</b>	
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012 FSR approval dated 12/06/2012	
<b>Information Verified by Lead Assessor:</b>	
The FSR approval dated 12/06/2012 was validated.	
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
The FSR approval has been provided. CAR#13 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LI]

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CL	Number:	CL #14	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
Please clarify how 0.75 of $\phi_y$ and 1.0 of $MCF_y$ in section D.6.1 of CPA-01 is determined for $BE_{CH_4,SWDS,y}$ calculation.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
According to “Emissions from solid waste disposal sites”, the project belongs to Application A and wet conditions, thus the default value of 0.75 is adopted for the baseline emissions. The landfill where the LFG is generated is an anaerobic managed solid waste disposal site with controlled placement of waste and including cover material, thus default value of 1.0 is adopted.					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012 Meteorological data issued by meteorological bureau of Shangrao City dated 23/11/2011					
<b>Information Verified by Lead Assessor:</b>					
Meteorological data and the landfill management were verified.					
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012	
By reviewing the meteorological data issued by meteorological bureau of Shangrao City dated 23/11/2011, it is confirmed that the climate where the CPA located is wet condition. Thus, the default value of 0.75 is correctly chosen for the baseline emissions. During the onsite physical inspection and interviewing with the landfill owner, it is confirmed that the landfill site is well managed with cover material and mechanical compacting. Thus, the default value of 1.0 is correctly chosen. CL#14 was closed.					
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]	

Date:	10/06/2012	Raised by:	Assessment team		
Type:	CL	Number:	CL #15	Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>					
Please clearly clarify the identified relevant electricity system for the CPA-01 instead of general description.					
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012	
The electricity system for the CPA-01 is Central China Power Grid (CCPG), which covers Henan province, Hubei province, Hunan province, Jiangxi province, Sichuan province, and Chongqing city. In addition, CCPG imports electricity from other two regional grids, North West Power Grid and the North China Power Grid, which are connected electricity systems.					
<b>Documentation Provided by Project Participant:</b>					
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012					
<b>Information Verified by Lead Assessor:</b>					
The relevant electricity system in the revised CPA DD was validated.					



<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>	<b>Date:</b> 11/08/2012
By reviewing the revised CPA DD, it is confirmed that the project electricity system and the connected electricity system are correctly described in the CPA DD. The power generated by the project displaces the equivalent electricity generated by the CCPG, which is the project electricity system. The CCPG is a large regional grid, which covers Henan province, Hubei province, Hunan province, Jiangxi province, Sichuan province, and Chongqing city. Also, CCPG connects and imports electricity from other two regional grids, North West Power Grid and the North China Power Grid which is defined as the connected electricity system. CL#15 was closed.	
<b>Acceptance and Close out by Lead Assessor:</b>	<b>Date:</b> 11/08/2012 [Shute LI]

Date:	10/06/2012		Raised by:	Assessment team		
Type:	CL	Number:	CL #16		Reference:	AU4 Table 2
<b>Lead Assessor Comment:</b>						
Please clarify why F5 is not used for measuring LFG <sub>electricity,y</sub> in section D.7.1 of CPA-01 and please clarify why the sum of all reading of F2-F5 is the total LFG flow rate in section D.7.2.						
<b>Project Participant Response:</b>				<b>Date:</b> 01/08/2012		
F5 has been added for measuring LFG <sub>electricity,y</sub> in section D.7.1 of CAP-01. In section D.7.2 of CPA-01, the description has been revised as “The sum of all reading of F2-F5 is the total LFG flow rate used for electricity generation.”						
<b>Documentation Provided by Project Participant:</b>						
CPA DD (CPA 01) ver 3.0, dated on 01/08/2012						
<b>Information Verified by Lead Assessor:</b>						
The monitoring procedure for flow meter F2-F5 in section D.7 was verified.						
<b>Reasoning for not Acceptance or Acceptance and Close Out:</b>				<b>Date:</b> 11/08/2012		
It is confirmed that LFG <sub>electricity,y</sub> will be correctly monitored by flow meter F2-F5 and the sum of all reading of F2-F5 is the total LFG flow rate used for electricity generation. CL#16 was closed.						
<b>Acceptance and Close out by Lead Assessor:</b>				<b>Date:</b> 11/08/2012 [Shute LI]		

## A.4 Annex 4: Team Members Statements of Competency

### Statement of Competence

Name: Shute Li

#### Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	x

#### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<b>x</b>
Technical Area(s): TA 1.2 Energy generation from renewable energy sources	
<b>2. Energy Distribution</b>	
Technical Area(s):	
<b>3. Energy Demand</b>	
Technical Area(s):	
<b>4. Manufacturing</b>	
Technical Area(s):	
<b>5. Chemical Industry</b>	
Technical Area(s):	
<b>6. Construction</b>	
Technical Area(s):	
<b>7. Transport</b>	
Technical Area(s):	
<b>8. Mining/Mineral Production</b>	
Technical Area(s):	
<b>9. Metal Production</b>	
Technical Area(s):	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	
Technical Area(s):	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	<b>x</b>
Technical Area(s): TA 11: Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride.	
<b>12. Solvent Use</b>	
Technical Area(s):	
<b>13. Waste Handling and Disposal</b>	<b>x</b>
Technical Area(s): TA 13.1: Waste handling and disposal	
<b>14. Afforestation and Reforestation</b>	
Technical Area(s):	
<b>15. Agriculture</b>	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 01/08/2012

## Statement of Competence

Name: Linda Hu

### Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	x

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<b>x</b>
<i>Technical Area(s): 1.2 Energy generation from renewable energy sources</i>	
<b>2. Energy Distribution</b>	
<i>Technical Area(s):</i>	
<b>3. Energy Demand</b>	
<i>Technical Area(s):</i>	
<b>4. Manufacturing</b>	
<i>Technical Area(s):</i>	
<b>5. Chemical Industry</b>	
<i>Technical Area(s):</i>	
<b>6. Construction</b>	
<i>Technical Area(s):</i>	
<b>7. Transport</b>	
<i>Technical Area(s):</i>	
<b>8. Mining/Mineral Production</b>	
<i>Technical Area(s):</i>	
<b>9. Metal Production</b>	
<i>Technical Area(s):</i>	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	
<i>Technical Area(s):</i>	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	<b>x</b>
<i>Technical Area(s): TA 11.2 GHG capture and destruction</i>	
<b>12. Solvent Use</b>	
<i>Technical Area(s):</i>	
<b>13. Waste Handling and Disposal</b>	
<i>Technical Area(s):</i>	
<b>14. Afforestation and Reforestation</b>	
<i>Technical Area(s):</i>	
<b>15. Agriculture</b>	
<i>Technical Area(s):</i>	

Approved Member of Staff by: Siddharth Yadav Date: 10/09/2012

## Statement of Competence

Name: James Sun

### Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<b>x</b>
<i>Technical Area(s): 1.2 Energy generation from renewable energy sources</i>	
<b>2. Energy Distribution</b>	
<i>Technical Area(s):</i>	
<b>3. Energy Demand</b>	
<i>Technical Area(s):</i>	
<b>4. Manufacturing</b>	
<i>Technical Area(s):</i>	
<b>5. Chemical Industry</b>	
<i>Technical Area(s):</i>	
<b>6. Construction</b>	
<i>Technical Area(s):</i>	
<b>7. Transport</b>	
<i>Technical Area(s):</i>	
<b>8. Mining/Mineral Production</b>	
<i>Technical Area(s):</i>	
<b>9. Metal Production</b>	
<i>Technical Area(s):</i>	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	
<i>Technical Area(s):</i>	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	
<i>Technical Area(s):</i>	
<b>12. Solvent Use</b>	
<i>Technical Area(s):</i>	
<b>13. Waste Handling and Disposal</b>	
<i>Technical Area(s):</i>	
<b>14. Afforestation and Reforestation</b>	
<i>Technical Area(s):</i>	
<b>15. Agriculture</b>	
<i>Technical Area(s):</i>	

Approved Member of Staff by: Siddharth Yadav Date: 14/08/2012

## Statement of Competence

Name: Yi Liao

### Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<b>x</b>
Technical Area(s): TA 1.1 Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
TA 1.2 Energy generation from renewable energy sources	
<b>2. Energy Distribution</b>	
Technical Area(s):	
<b>3. Energy Demand</b>	
Technical Area(s):	
<b>4. Manufacturing</b>	
Technical Area(s):	
<b>5. Chemical Industry</b>	
Technical Area(s):	
<b>6. Construction</b>	
Technical Area(s):	
<b>7. Transport</b>	
Technical Area(s):	
<b>8. Mining/Mineral Production</b>	
Technical Area(s):	
<b>9. Metal Production</b>	
Technical Area(s):	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	
Technical Area(s):	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	
Technical Area(s):	
<b>12. Solvent Use</b>	
Technical Area(s):	
<b>13. Waste Handling and Disposal</b>	<b>x</b>
Technical Area(s): TA 13.1: Waste handling and disposal	
<b>14. Afforestation and Reforestation</b>	
Technical Area(s):	
<b>15. Agriculture</b>	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 15/02/2012

## Statement of Competence

Name: David Diaz

### Status

-	Lead Assessor	<input type="checkbox"/>	-	Expert	<input type="checkbox"/>
-	Assessor	<input type="checkbox"/>	-	Financial Expert	<input checked="" type="checkbox"/>
-	Local Assessor	<input type="checkbox"/>	-	Technical Reviewer	<input type="checkbox"/>

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>2. Energy Distribution</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>3. Energy Demand</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>4. Manufacturing</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>5. Chemical Industry</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>6. Construction</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>7. Transport</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>8. Mining/Mineral Production</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>9. Metal Production</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>12. Solvent Use</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>13. Waste Handling and Disposal</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>14. Afforestation and Reforestation</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>15. Agriculture</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	

Approved Member of Staff by: Siddharth Yadav Date: 25/01/2012

## Statement of Competence

Name: Joe Sun

### Status

- Lead Assessor	<input type="checkbox"/>	- Expert	<input type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input checked="" type="checkbox"/>

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>2. Energy Distribution</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>3. Energy Demand</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>4. Manufacturing</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>5. Chemical Industry</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>6. Construction</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>7. Transport</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>8. Mining/Mineral Production</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>9. Metal Production</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>12. Solvent Use</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>13. Waste Handling and Disposal</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>14. Afforestation and Reforestation</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	
<b>15. Agriculture</b>	<input type="checkbox"/>
<i>Technical Area(s):</i>	

Approved Member of Staff by: Siddharth Yadav Date: 11/09/2012



## Statement of Competence

Name: Jett Zhang

### Status

- Lead Assessor	x	- Expert	x
- Assessor	x	- Financial Expert	
- Local Assessor	China	- Technical Reviewer	x

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<b>x</b>
Technical Area(s): TA 1.2 Energy generation from renewable energy sources	
<b>2. Energy Distribution</b>	
Technical Area(s):	
<b>3. Energy Demand</b>	
Technical Area(s):	
<b>4. Manufacturing</b>	
Technical Area(s):	
<b>5. Chemical Industry</b>	
Technical Area(s):	
<b>6. Construction</b>	
Technical Area(s):	
<b>7. Transport</b>	
Technical Area(s):	
<b>8. Mining/Mineral Production</b>	
Technical Area(s):	
<b>9. Metal Production</b>	
Technical Area(s):	
<b>10. Fugitive Emissions from Fuels (solid, oil and gas)</b>	
Technical Area(s):	
<b>11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	
Technical Area(s):	
<b>12. Solvent Use</b>	
Technical Area(s):	
<b>13. Waste Handling and Disposal</b>	<b>x</b>
Technical Area(s): TA 13.1: Waste handling and disposal	
<b>14. Afforestation and Reforestation</b>	
Technical Area(s):	
<b>15. Agriculture</b>	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 21/09/2012

## Statement of Competence

Name: **Jumson Fu**

### Status

- Lead Assessor	<input type="checkbox"/>	- Expert	<input checked="" type="checkbox"/>
- Assessor	<input type="checkbox"/>	- Financial Expert	<input type="checkbox"/>
- Local Assessor	<input type="checkbox"/>	- Technical Reviewer	<input type="checkbox"/>

### Scopes of Expertise

<b>1. Energy Industries (renewable / non-renewable)</b>	<input checked="" type="checkbox"/>
Technical Area(s): TA 1.1 Thermal energy generation from fossil fuels and biomass including thermal electricity from solar	
<b>2. Energy Distribution</b>	<input type="checkbox"/>
Technical Area(s):	
<b>3. Energy Demand</b>	<input type="checkbox"/>
Technical Area(s):	
<b>5. Manufacturing</b>	<input type="checkbox"/>
Technical Area(s):	
<b>6. Chemical Industry</b>	<input type="checkbox"/>
Technical Area(s):	
<b>7. Construction</b>	<input type="checkbox"/>
Technical Area(s):	
<b>8. Transport</b>	<input type="checkbox"/>
Technical Area(s):	
<b>9. Mining/Mineral Production</b>	<input type="checkbox"/>
Technical Area(s):	
<b>10. Metal Production</b>	<input type="checkbox"/>
Technical Area(s):	
<b>11. Fugitive Emissions from Fuels (solid, oil and gas)</b>	<input type="checkbox"/>
Technical Area(s):	
<b>12. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride</b>	<input type="checkbox"/>
Technical Area(s):	
<b>13. Solvent Use</b>	<input type="checkbox"/>
Technical Area(s):	
<b>14. Waste Handling and Disposal</b>	<input type="checkbox"/>
Technical Area(s):	
<b>15. Afforestation and Reforestation</b>	<input type="checkbox"/>
Technical Area(s):	
<b>16. Agriculture</b>	<input type="checkbox"/>
Technical Area(s):	

Approved Member of Staff by: **Siddharth Yadav** Date: **15/02/2012**