VALIDATION REPORT

Carbon Capital Markets Ltd.

Montalban Methane Power Corporation

Montalban Methane Recovery and Power Generation Project

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Project Title:	Organisational Unit:
Montalban Methane Recovery and Power Generation Project	SGS United Kingdom Limited
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3	Carbon Capital Markets Ltd.

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Summary:

SGS United Kingdom Ltd. has made a validation of the CDM project activity "Montalban Methane Recovery and Power Generation Project", by Carbon Capital Markets Ltd. on the basis of UNFCCC criteria for the CDM, as well as criteria given to provide for consistent project operations, monitoring and reporting. UNFCCC criteria refer to Article 12 of the Kyoto Protocol, the CDM rules and modalities and the subsequent decisions by the CDM Executive Board, as well as the host country criteria.

The scope of validation is the independent and objective review of the project design document, baseline study and monitoring plan and other relevant document of the project. The information in this document is reviewed against the criteria defined in the Marrakech Accords (Decision 17) and the Kyoto Protocol (Article 12) and subsequent guidance from the CDM Executive Board.

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

The overall validation process, from Contract Review to Validation Report & Opinion, was conducted using internal procedures (UK.PP.12 issue 3 dated 19/01/2007).

The first output of the validation process is a list of Corrective Actions Requests and New Information Requests (CAR and NIR), presented in Annex 2 of this document. Taking into account this output, the project proponent revised its project design document.

The primary purpose of the proposed project is to capture the landfill gas (LFG) from Montalban sanitary landfill site by applying proper landfill covering and installing an onsite LFG collection system and destruction of methane of LFG through generation of electricity by installation of power generation system and proper flaring systems. The installed capacity of the power generation system will be up to 15 MW and the generated power will be evacuated to the grid system.

In summary, it is SGS's opinion that the proposed CDM project activity correctly applies the baseline and monitoring methodology as mentioned in ACM0001 version 6 and AMS-I.D version 12 adopted for the proposed project activity and meets the relevant UNFCCC requirements for the CDM and the relevant host country criteria. The project activity is likely to achieve the estimated amount of emission reductions i.e. yearly average 589,993 tCO2e for the selected ten year fixed crediting period.

Subject:		**Indexing Terms**	
CDM Validation			
Validation Team:			
Mr. Pankaj Mohan – Lead Assessor Mr. Ajoy Gupta – Assessor Mr. Jayachandran Nair – Expert Mr. Cristino Q. Navarro – Local Assessor (Trainee)			
Technical Review:		☒	No Distribution (without permission from the Client or responsible organisational unit)
Name: Irma Lubrecht, Sanjeev Kumar Date: 10.03.2008 / 15.04.2008 / 22.05.2008 / 22.11.2008			
Authorized Signatory:		☐	Limited Distribution
Name: Siddharth Yadav			
Date of Final Decision:	Number of Pages:	☐	Unrestricted Distribution
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Abbreviations

CAR	Corrective Action Request
CCM	Carbon Capital Markets Ltd.
CDM	Clean Development Mechanism
CEA	Central Electricity Authority
CER	Certified Emission Reductions
CO_2	Carbon Dioxide
DNA	Designated National Authority
DOE	Designated Operational Entity
DR	Document Review
DRI	Direct Reduction Iron
EIA	Environment Impact Assessment
GHG	Green House Gas(es)
LFG	Landfill gas
LSC	Local Stakeholder Consultation
I	Interview
IPCC	Intergovernmental Panel on Climate Change
ISHC	International Stakeholder Consultation
MMPC	Montalban Methane Power Corporation
MoU	Memorandum of Understanding
MoV	Means of Verification
MP	Monitoring Plan
MWh	Mega watt hour
NIR	New Information Request
PDD	Project Design Document
PPA	Power Purchase Agreement
UNFCCC	United Nations Framework Convention for Climate Change

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1. Introduction

1.1 Objective

Carbon Capital Markets Limited has commissioned SGS to perform the validation of the project: "Montalban Methane Recovery and Power Generation Project", at Rodriguez, province of Rizal, Philippines with regard to the relevant requirements for CDM project activities. The purpose of a validation is to have an independent third party assess the project design. In particular, the project's baseline, the monitoring plan (MP) and the project's compliance with relevant UNFCCC and host country criteria are validated in order to confirm that the project 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 project and its intended generation of Certified Emission Reduction (CER). UNFCCC criteria refer to the Kyoto Protocol criteria and the CDM rules and modalities and related decisions by the COP/MOP and the CDM Executive Board.

1.2 Scope

The scope of the validation is defined as an independent and objective review of the project design document, the project'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 project 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 project design.

1.3 GHG Project Description

The primary purpose of the proposed project is to capture the landfill gas (LFG) from Montalban sanitary landfill site by applying proper landfill covering and installing an onsite LFG collection system and destruction of methane of LFG through generation of electricity by installation of power generation system and proper flaring systems. The installed capacity of the power generation system will be up to 15 MW and the generated power will be evacuated to the grid system.

Baseline Scenario:

In the baseline scenario, the landfill gas would have been allowed to escape unutilized with a significant amount of methane concentration to the atmosphere and the equal amount of electricity would have been generated from the carbon intensive power plants connected to the regional Luzon grid system (a part of Philippines national grid system).

With Project Scenario:

The project activity will be capturing the landfill gas by proper gas collection system and will use the methane content of LFG as fuel for generation of power through gas generators and generated power will be evacuated to the regional Luzon grid system, which in turn contributes towards wellbeing of environmental condition through reduction of GHG emissions and improvement of aesthetic value.

Leakage:

As per ACM0001 version 06; no leakage is to be considered and requirement of leakage calculation has been justified in accordance with AMS-I.D version 12.

Environmental & Social Impacts:
The probability of the impacts of the project activity towards the surrounding environmental and social scenario has been verified during the site validation. Compliance of the project operation with the relevant environmental legislative requirement of the host country has been verified with reference to the No Objection Certificate (NOC) dated 21 February 2007 from Department of Environment and Natural Resources (DENR), Republic of the Philippines, where no such issue towards negative environmental

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impact has been identified. Moreover the issue also verified during interviewing local stakeholders, where no negative impact towards local environmental and social scenario has been identified. Thus, according to the validation site visit there is no negative environmental and social impact expected due to the project activity.

1.4 The Names and Roles of the Validation Team Members

Name	***Role***
Pankaj Mohan	Lead Assessor
Ajoy Gupta	Assessor
Jayachandran Nair	Expert
Cristino Q. Navarro	Local Assessor (Trainee)

Statement of Competence of team members are attached at Annex IV.

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2. Methodology

2.1 Review of CDM-PDD and Additional Documentation

The validation is performed primarily as a document review of the publicly available project documents. The assessment is performed by trained assessors using a validation protocol.

A site visit is usually required to verify assumptions in the baseline. Additional information can be required to complete the validation, which may be obtained from public sources or through telephone and face-to-face interviews with key stakeholders (including the project developers and Government and NGO representatives in the host country). These may be undertaken by the local SGS affiliate. The results of this local assessment are summarized in Annex 1 to this report.

2.2 Use of the Validation Protocol

The validation protocol used for the assessment is partly based on the templates of the IETA / World Bank Validation and Verification Manual and partly on the experience of SGS with the validation of CDM projects. It serves the following purposes:

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

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

Checklist Question	***Means of Verification (MoV)***	***Comment***	***Draft and/or Final Conclusion***
The various requirements are linked to checklist questions the project should meet.	*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). **New Information Request (NIR)** is used when the validation team has identified a need for further clarification.*

The completed validation protocol for this project is attached as Annex 2 to this report

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2.3 Findings

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

In general, where insufficient or inaccurate information is available and clarification or new information is required the Assessor shall raise a **New Information Request (NIR)** specifying what additional information is required.

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

I. mistakes have been made with a direct influence on project results;

II. validation protocol requirements have not been met; or

III. there is a risk that the project would not be accepted as a CDM project or that emission reductions will not be verified.

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

Observations may be raised which are for the benefit of future projects and future verification or validation actors. These have no impact upon the completion of the validation or verification activity.

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

2.4 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.

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3. Determination Findings

3.1 Participation Requirements

The project activity is being implemented under bilateral modalities. Philippines and United Kingdom of Great Britain and Northern Ireland are participating as the non-Annex I host party and Annex I investor country respectively for this project activity. The Philippines have ratified the Kyoto protocol on 20 November 2003 as non-Annex I country and United Kingdom of Great Britain and Northern Ireland has ratified the Kyoto protocol on 31 May 2002 as Annex I country. Letters of Approval from Host Country and Investor Country Designated National Authorities were missing so CAR 01 was raised.

LoA from Host country (Philippines) Ref. No. LOA-2008-053-WM042 dated 11 March 2008 has been submitted by the project proponent, the name of the project as mentioned in final PDD and Host country LoA is completely consistent, however the Sectoral Scope, Methodology used, Scale & size length of the crediting period was not matching with the facts as mentioned in PDD and the validation findings, further to that the typographical errors have been rectified by the Philippine DNA on the original LoA document and the rectifications have been counter signed by Ms. Joyceline A. Goco, Head, CDM Secretariat, Philippine DNA. The entire communications made between project proponent and Philippine DNA or vice-versa towards rectifications of the facts mentioned in Host Country LoA (rectification request from Montalban Methane Power Corporation to Philippine DNA dated 14 March 2008, Response from Philippine DNA to project proponent dated 17 March 2008, further rectification request from Carbon Capital Markets to Philippine DNA) has been checked and found justified, apart from that a declaration letter dated 2nd April 2008 describing entire rectification issues along with milestones duly signed by both the project proponents (Montalban Methane Power Corporation and Carbon Capital Markets Ltd.) has been obtained. All the information provided in rectified Host Country LoA has been cross checked and found satisfactory and in line with the project design. Thus the LOA from Host Country has been accepted.

LoA from Annex I country DNA, Ref. CCML/02/2008, dated 1st April 2008 has been cross checked and found satisfactory. CAR 01 was closed out.

CAR 02 was raised as a letter on the modalities of communication (MoC) was not available. In response to the CAR project proponent has submitted a letter on the modalities of communication, but the name of the project activity in the MoC was differing from the name in PDD version 2, thus a further clarification was asked. *I*n response the project proponent was rectified the issue and corrected the name of the project activity in a revised letter as the modalities of communication dated 24th September 2007, the name of the project activity and the name & contact details of the project participants are found in line with the same as mentioned in PDD version 03. CAR 02 was closed out.

3.2 Baseline Selection and Additionality

The project activity has applied the most likely baseline scenario as mentioned in ACM0001version 06. Atmospheric release of landfill gas with a significant amount of methane concentration and power generation through existing and/or new grid-connected power plants was selected as the most plausible baseline scenario for the project activity and the same has been properly represented in PDD version 03.

Identification of all potential realistic and credible baseline alternatives for LFG emission and power generation and justification towards screening of most plausible base-line scenario as described in section B.4 of the PDD version 01, appeared to be unclear and not in line with ACM0001 version 06, thus CAR 12 was raised.

In reply to this CAR project proponent has rephrased the specific section and submitted revised PDD version 03. The new description of all potential realistic and credible baseline alternatives for Disposal or treatment of waste and Power generation scenarios and the screening of most plausible baseline scenario among the selected alternatives as provided in PDD version 03 dated 28th November 2007 has been reviewed and found in accordance with ACM0001 version 06 and Tool for demonstration and assessment of additionality Version 3.

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The justification of the selection of the most plausible baseline scenario towards Disposal or treatment of waste as "*atmospheric release of landfill gas instead of partial capture of landfill gas and destruction due to lack of implementation of legislation*" has been cross checked with reference to the following documents as provided by the project proponent –

1. "The Garbage Book: Solid Waste Management in Metro Manila." Printed for the Department of Environment and Natural Resource in TA 3848-PHI: Metro Manila Solid Waste Management Project. Asian Development Bank, 2004. /document reference no. 09/
2. "Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines" by Grace P. Sapuay, Solid Waste Management Association of the Philippines, UG-9 Cityland 8, #98 Sen. Gil Puyat Avenue, Makati City 1200 Philippines, E-mail: gracepsapuay@yahoo.com (available at http://www.adb.org/Documents/TACRs/PHI/tacr-phi-3848.pdf last accessed on 3rd December 2007) /document reference no. 11/
3. Solid Waste Inventory - National Solid Waste Management Commission, as of 1st Quarter Updates 2007 (available at http://www.denr.gov.ph/nswmc/6.php, last accessed on 3rd December 2007) /document reference no. 12/

With reference to the above documents, facts and figures, it is found justified that there is lack of proper solid waste management practices due to non enforcement or non implementation of "Ecological Solid Waste Management Act of 2000 (RA 9003) and there are no enforced regulations requiring LFG to be collected/destroyed, thus selection of baseline scenario towards Disposal or treatment of waste as "*atmospheric release of landfill gas instead of partial capture of landfill gas and destruction due to lack of implementation of legislation*" has been accepted and copies of all the supporting documents have been obtained.

The justification towards conservative screening of the most plausible baseline scenario towards Power generation as "*power generation through existing and/or new grid-connected power plants*" and the fossil fuel intensity of the Luzon grid has been cross checked with reference to the Power Development Plan 2006 Update Supplement from Philippines Department of Energy and the Power Statistics Philippines Department of Energy available at http://www.doe.gov.ph and found justified in terms of current generation mix and planned capacity addition of Luzon grid in the future. Hence, CAR 12 was closed out.

The project activity includes a grid connected electricity generation module as the second phase, but no information regarding identification of relevant grid system as the conservative approach towards selection of electricity generation baseline scenario, has been provided by PDD version 01, thus CAR 10 was raised for proper clarification. In response to CAR 10 project proponent has submitted the revised PDD version 02 but description and basis towards identification of relevant baseline grid system as "Luzon grid system" regarding determination of emission factor of the baseline electricity has not been provided clearly in Section B.5 of PDD version 02, thus a further substantiation was requested.

Revised PDD version 03 has been submitted with more elaboration on the selection approach for Luzon grid system as the applicable baseline scenario. The re-phrased description towards selection of Luzon Grid system of Philippines National Power system as the baseline grid electricity system applicable for the project activity and the approach towards calculation of Luzon Grid system emission factor as provided in PDD version 03 and the excel calculation sheet named "Luzon Grid Emissions Calculations" has been cross checked with reference to the facts and figures provided in Philippines' Department of Energy website (http://www.doe.gov.ph/) and the report Luzon Grid Using Market Management System' Philippine Electricity Market Corporation Market Operations Group, August 2005', along with those the project proponent has submitted a declaration regarding project activity will be connected to the Luzon Grid system dated 27 September 2007 the details were found satisfactory and thus accepted.

CAR 10 was closed out.

Project's system boundary was not clearly described in version 01 of the PDD, thus CAR 11 was raised for further clarification. In response to CAR 11 a revised description of the project's system boundary was inserted in PDD version 02, but the schematic representation of project boundary in section B.3 of PDD version 02 was not clear as the diagram showed the power generation from the recovered LFG as 'optional'. Further clarification was requested. The description towards project boundary provided in PDD version 03 has been reviewed and found in line with the project implementation and requirement of ACM0001 ver 06.

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Consequently, CAR 11was closed out.

According to the version 01 of the PDD, the project additionality has been discussed with reference to the "Tools for the demonstration and assessment of additionality" (version 3). All the steps of the additionality tool have been followed, but the assumptions described in step 1, 2 and 4 were not transparently documented and justified.

1. The description and justification for selection of the most likely baseline scenario is not in line with ACM0001 version 06 and the additionality tool. The description of consistency with mandatory laws and regulations for the baseline alternatives consideration was not clear and explanations for lack of proper solid waste management practices due to non enforcement/non implementation of "Ecological Solid Waste Management Act of 2000 and widespread non compliance with those applicable legal requirements in the host country has not been justified through proper documentary evidence in sub-step 1a and 1d respectively in additionality discussions of PDD version 01.
2. Investment analysis for the project activity has been described through benchmark analysis, which is justified as the proposed project activity will generate financial benefit in terms of revenue from power sales other than CDM benefit. But the description of investment analysis of the project activity is not clear as the critical techno-economic assumptions made during project IRR calculation is not provided and whether the assumption of power tariff is in line with the terms and condition of Power Purchase Agreement signed with the concerned power authority is also not transparent. Besides that project IRR value considering CDM benefit, benchmark value has been referred during benchmark analysis and consideration of 10% increase in project revenue and reduction in project cost is also not transparent in section B.5 of PDD version 01.
3. In common practice analysis, the proper reference towards description of existing common practice was not provided and the justification towards the project activity not as a BAU situation as mentioned in step 4 of Section B.5 of the PDD version 01 was not clear.

Thus, CAR 13 was raised in order to request clarification and related documents on which basis the project was shown additional.

In response to CAR 13, project proponent has submitted the revised PDD version 02 with further explanation on project additionality, citation from document reference no. 08 towards establishment of baseline scenario in waste management sector of Philippines, project IRR calculation sheet. But after cross checking all the facts and documents the following issues were found:

1. The description of the project alternative scenarios has not been represented in accordance to the ACM0001 version 6 and Tool for the demonstration and assessment of additionality, version 3 in PDD version 02. There is still no proper description of identification of possible project alternatives and no proper justification of screening of potential realistic and credible baseline alternatives in sub-step 1a of additionality discussion.
2. The issue on lack of proper solid waste management practices due to non enforcement or non implementation of "Ecological Solid Waste Management Act of 2000 (RA 9003) and there are no enforced regulations requiring LFG to be collected/destroyed was still not clear.
3. The IRR values towards the project activity were not clear, as the project IRR value has been represented as 9% in PDD version 2 but the IRR calculation spread sheet named "Base IRR – Annex 7 - Montalban Calculations 2007-09-12" as provided by the project proponent showed the same parameter as "8.7%", Project revenue consideration as a result of sale of electricity generation is not transparent as the consideration basis of installed capacity of electricity generation is not clear as represented in spreadsheets named "Base IRR" & "MWh_Finance" of Annex 7 - Montalban Calculations 2007-09-12 and the project IRR value considering CDM revenue as represented considering the CER volume and CER price is not clear as represented in spreadsheets named "IRR with CER" & "CER Price" of Annex 7 - Montalban Calculations 2007-09-12.
4. The traceability of the information regarding benchmark value "14.5%" for investments has been supplied as "Annex 9 - Philippine Govt Bond Rates - 2007-08-30" by the project proponent was not clear, it is also not clear which type of Government Bond rate (i.e. infrastructural, cash etc.) is being

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referred to regarding investment benchmark value. The discussions regarding 'Investment Analysis' has not been reflected in Section B.5 of PDD version 02.

5. The 10% decrease of project revenue is justified due to risks associated with the less power generation or reduction in operational costs but the issue of 10% increase in project revenue as mentioned was not clear.
6. The Common Practice Analysis was not clear and it has not been described in accordance with the Tool for the demonstration and assessment of additionality, version 3.

More information has been requested.

In response to CAR 13 a revised PDD version 03 has been submitted and the description of project additionality has been reviewed in the following manner -

- The assumptions for power tariff for calculation of project revenue from power sale has been checked with reference to the Asian Development Bank Publication – "Philippines: Power Sector Profile and Roadmap by Geoffrey Brown, Jose Victor Emmanuel A. de Dios, and Helena S. Valderrama, as Philippine Peso 6.0375 per kWh. This is justified with the electricity rate (P 4.3344 per KWh) for the Luzon Grid as provided under National Power Corporation Effective Rates (http://www.napocor.gov.ph/npc5.asp last accessed on 3rd December 07)
- The identification of alternatives for the project activity and screening of potential realistic and credible baseline alternatives as provided in PDD version 03 have been checked and found justified with the requirements of applied baseline methodology ACM0001 version 06 and the Tool for the demonstration and assessment of additionality" (version 3).
- The fact regarding the implementation of the project activity is not under any legal requirement has been cross checked with reference to the following documents –
    a. Document reference no. 08.
    b. Technical Assistance Completion Report for TA 3848-PHI: Metro Manila Solid Waste Management (available at http://www.adb.org/Documents/TACRs/PHI/tacr-phi-3848.pdf last accessed on 3rd Dec 07) /document reference no. 09/
    c. Document reference no. 10

  Although RA 9003 Rule Section 41 (available at http://www.emb.gov.ph/nswmc/res/R.A.%209003.PDF, last accessed on 3rd Dec 07) states "Gas control recovery system – a series of vertical wells or horizontal trenches containing permeable materials and perforated piping placed in the landfill to collect gas for treatment or productive use as an energy source", but from the above mentioned documents checked it has been found that at present, there are no enforced regulations regarding the collection of LFG from dumpsites in the Philippines and implementation of Ecological Solid Waste Management Act of 2000 (RA 9003) is not properly in place. However the monitoring of "Regulatory requirements relating to landfill gas projects" on annual basis has been included in monitoring plan of PDD version 03 to keep a track on the amount on methane that would have been destroyed/ combusted during the year in the absence of the project activity which is found in line with the ACM0001 version 06 and thus accepted.
- The project IRR values without (6.7%) and without CDM revenue (33.4%) has been properly represented in PDD version 03.
- Project IRR calculation for the project activity without or with CDM as provided in PDD version 03 and IRR "Montalban Calculations" worksheet has been checked with reference to the specific techno-economic assumptions made during calculation as follows –

Sl. No.	Parameters	Unit	Value
1	Total CAPEX	US$	35,323,275
2	Total OPEX	US$	51,982,539
3	Total Royalty	US$	22,540,890

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4	Depreciation rate	US$	17,034,404
5	Taxes	US$	27,659,908
6	Project operational life time	Years	12
7	Expected LFG capture	m^3	923,278,772
8	Expected electricity exported to the grid	MWh	1,194,514
9	Electricity rate per unit	USD/KWh	0.129
10	Exchange rate for electricity tariff rate	USD/PHP	46.78
11	Annual average emission reduction for 10 years crediting period	tCO_2	589,993
12	Predictable CER price	Euro/CER	12
13	Exchange rate for CER price	EU/USD	1.35

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The assumptions used towards the project invest analysis calculation has been found satisfactory. The IRR calculation has been checked and seems to be justified, further more the project proponent has submitted the independent Chartered Accountant (ICAEW Membership no. 9179458) certification towards the Project IRR values dated 28.11.2007, thus the IRR values for the project activity with or without CDM revenue has been accepted.

- The benchmark value referred for the project investment analysis is the Government Bond Rate for Philippine Treasury Bond rate of 6.5% for 07 years available at the time of financial analysis. The Govt. Bond rate as applied was cross checked with the Philippines Bureau of Treasury (available at http://business.inquirer.net/money/topstories/view_article.php?article_id=92047). The benchmark value considered for the project investment analysis is well justified as the Treasury Bond provides 6.5% return on investment in 07 years whereas the project investment for 12 years without CDM revenue is expected to provide 6.7% IRR as the equity investment.

  In addition, it should be noted that the benchmark of government bonds represents a practically risk-free return over the 7 years. Investment in Landfill Gas to Energy projects involves several risks compared to government bonds, which cause investors to demand higher returns. These risks include being an equity investment (lower associated rights compared to debt in the case of liquidation); length of time for investment; exposure to early stage development risk; and additional performance level and variability risk. Given these risks associated with the Project Activity, a private investor would require significantly higher returns than the government bonds. Therefore, it was accepted that a private investor would favour investing into government bonds rather than investment in the Project Activity without revenue from the sale of CERs by considering the country risk premium also. This has been verified from "Country Default Spreads and Risk Premiums" by Aswath Damodaran, Professor of Finance at the Stern School of Business at New York University and corporate finance specialist (please refer the web-link http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html).

Deleted: The benchmark value referred towards the project investment analysis as the Government Bond Rates as seven year Philippine Treasury Bond rate of 6.5% this is in line with the tool for the demonstration and assessment of additionality (version 3). The Govt. Bond rate has been cross checked with the seven year Philippine treasury bond rate of 6.5% from the Philippines Bureau of Treasury (available at http://business.inquirer.net/money/topstories/view_article.php?article_id=92047, last accessed on 3rd Dec 2007), The benchmark value considered for the project investment analysis is well justified as the Treasury Bond provides 6.5% return on investment in seven years whereas the project investment for twelve years without CDM revenue is expected to provide 6.7% IRR as the private investment. Thus the Benchmark value for project IRR has been found justified and the fact towards the project activity is unlikely to be financially attractive has been accepted.

- The description and calculation of sensitivity analysis of project IRR calculation as provided in the final PDD and "Montalban Calculations" worksheet for a range of ±10% due assumptions towards 10% increase in project revenue from electricity sold to the grid assuming increase in power price 10% reduction in project operational cost and 10% reduction in power generation, this is found satisfactory and justified towards financial unattractiveness of the project activity is robust to reasonable variations in the critical assumptions during comparison with the benchmark value.

- With reference to the document reference no. 8, 9 and 10, it is evident that the there are no enforced regulations requiring LFG to be collected/destroyed and the current solid waste management/ disposal facility has been cross checked according to the Solid Waste Inventory - National Solid Waste Management Commission, as of 1st Quarter Updates 2007 (available at http://www.denr.gov.ph/nswmc/6.php, last accessed on 3rd Dec 2007) –Total number of open dumpsites - 677 ; controlled dump sites – 343 and sanitary landfill site – 21. The referencing of the single proposed CDM project activity towards landfill gas capture and power generation being developed at Payatas

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controlled dumpsite of Quezon City of Philippines, which has requested registration under CDM modalities (available at http://cdm.unfccc.int/Projects/Validation/DB/5NDQA20R242WZEJ88W2NDIMO5KGXU6/view.html, last accessed on 3rd Dec 07) have been properly provided in the final PDD, which is checked and found satisfactory. Thus it has been accepted that the project activity (landfill gas recovery and grid connected power generation from landfill site) is not a common practice in the sector and in the region during the time of project validation.

Thus CAR 13 was closed out.

Based on the findings above, it was concluded that the project activity was not a likely baseline scenario and hence additional to any that would occur in absence of project activity.

The details regarding project investment modalities have not been clearly mentioned in PDD version 01, thus CAR 09 was raised seeking full information regarding project financing plan. As the reply of CAR 09 project proponent has submitted excel sheet named Montalban Calculations and revised PDD version 02. The "Montalban Financial Summary – 'Base Case' in spreadsheet Base IRR – Montalban Calculations'' as provided by the project proponent has been checked but the break-ups of total project capital expenditure and means of finance is not clear and the same has not been included in Section B.5 of PDD version 02. Thus further clarification was requested.

In reply project proponent has submitted the revised Montalban Calculation sheet containing the cost break up details. Detail financing plan towards the project activity along with the break-ups of total project capital expenditure and means of finance as provided in sheet named "MWh_Finance" of revised excel spreadsheet "Montalban Calculation" as provided by the project proponent has been checked and found justified and simultaneously the source of project finance and non involvement of ODA has been cross checked with reference to the Montalban Methane Power Corporation Declaration dated 27 Sep 2007, Declaration dated 28th November 2007 and Balance Sheet of Carbon Assets Fund as of 31 Aug 2007 represented by Carbon Capital Markets Ltd. All the documents found justified and satisfactory and it was accepted that the project financing has been done through Carbon Asset Fund of Carbon Capital Markets Ltd. which is one of the project participant and no debt or ODA has been involved in project financing. Copies of all the documents have been obtained from the project proponent. CAR 09 was closed out.

The CDM revenue has been considered as an integrated part of the project activity starting from the project conception and feasibility assessment stage. Prior consideration of the CDM revenue for the project activity has been cross checked with reference to the documentary evidences as mentioned below –

a. Contract Agreement signed between Municipality of Rodriguez and Karbon Kredit Philippines, Inc. for construction, installation and operation of the the Methane Recovery and Electricity Generation Project, Montalban Solid Waste Disposal Facility under the aegis of the Kyoto Protocol dated 10th August 2006. /document reference no. /35/

b. Deed of Assignment for rights, interests and obligations under the Contract for Recovery to effect the prompt implementation of the project signed between Karbon Kredit Philippines Incorporated and Montalban Methane Power Corporation with the consent of Municipality of Rodriguez, Rizal authorised by Notary Public for Makati City Atty. Lope M. Velasco on 16th March 2007. /document reference no. 28/

c. "Rodriguez Landfill Methane Recovery And Electricity Generation CDM Project - Feasibility Study Report" conducted by Japan Engineering Consultants Co., Ltd. during May 2007. /document reference no. 21/

d. Memorandum of Agreement signed by The Province of Rizal, The Municipality of Rodriguez, Rizal and International Solid Waste Integrated Management Specialist Inc. dated 4th June 2007. /document reference no. 27/

Consideration of fiscal incentives under Kyoto Protocol/ CDM revenue for the project activity has been distinctly identified in the documents mentioned above and the documents were found justified towards the acceptance of the fact that the CDM modalities have been seriously considered as the decisive factor for the project activity during the project conception phase.

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3.3 Application of Baseline Methodology and Calculation of Emission Factors

The proposed CDM project activity is the land fill gas recovery & grid connected power generation facility and uses baseline methodology as described in ACM0001 version 06 and AMS I.D. version 12.

PDD version 01 has used ACM0001 version 6 during determination of emission reductions, but the methodological choice towards the project activity has not been represented properly. Thus, CAR 14 was raised. In reply to CAR 14, project proponent submitted revised description in PDD version 02, the same has been checked but the description towards Explanation of methodological choice towards emission reduction calculation equation, description towards methodological choice for determination of "PEflare,y", approach followed towards determination of emission factor of the baseline electricity was not clear in PDD version 02. Further clarification was requested.

Revised final PDD with supporting references was submitted. The description towards methodological choice towards the project activity with reference to ACM0001 version 06 and AMS I.D. version 12 has been checked as follows -

- The equations for GHG emission reductions calculation and explanation towards the same as provided in Section B.6.1 - "Explanation of methodological choices" of final PDD, has been checked and found customized to the project activity and in line with the methodology.
- Further description provided for calculations and considerations of the parameter $MD_{project,y}$ - "the amount of methane that would have been destroyed/combusted during the year" in Section B.6.1 - "Explanation of methodological choices" of final PDD, has been checked and found justified and in line with ACM0001 ver 6.
- Further elaboration provided in Section B.6.1 - "Explanation of methodological choices" of final PDD has been checked and found customized towards choice of methodology for the project activity and justification towards GHG emission reductions calculation (in case of CO_2 emission factor for baseline electricity and CO_2 emission factor for project electricity consumption scenario) has been found satisfactory and well substantiated.
- The revised description towards consideration and basis for calculation of CO_2 emission factor for baseline electricity generation and the application of AMS.I.D ver12 (whether Combined Margin or Weighted average emissions of current generation mix) as provided in Section B.6.1 - "Explanation of methodological choices" of final PDD has been checked and found justified.
- The project proponent has provided calculation worksheet with traceable references for CO_2 emission factor of baseline electricity generation applying AMS.I.D ver12, the traceability of the figures has been cross checked with reference to the Philippines Department of Energy (www.doe.gov.ph/EP/Powerstat.htm, accessed on 3rd December 2007) and the fuel-specific emission factors used for determination of Carbon Emission Factor for baseline electricity has been cross checked with the traceable source of 'Indirect CO2 Emissions from the Consumption of Purchased Electricity' prepared by International Energy Agency (IEA - www.ghgprotocol.org/includes/getTarget.asp?type=d&id=MTczNDM , accessed on 3rd December 2007) that are specific to Philippines, which are found satisfactory.

Thus, CAR 14 was closed out.

The data source and basis of the value for CO_2 emission factor for baseline electricity generation has not been properly substantiated in PDD version 01, thus CAR 17 was raised.

In reply for CAR 17 project proponent has submitted the revised PDD version 02 containing the revised description towards basis and source towards consideration of power baseline data. The data towards power generation mix for 2006 and power generation values for 2006 as applied for CO_2 emission factor for baseline electricity generation has been cross checked with reference to the Power statistics data available at Philippines Department of Energy - Philippines Power Statistics: (available at http://www.doe.gov.ph/EP/Powerstat.htm , last accessed on 3rd December 2007) and found transparent. Hard copies of the power baseline data has been obtained from the project proponent, but the traceability of fuel-specific emission factors (tonnes CO2/MWh) for Philippines, developed by IEA, used for determination of Carbon Emission Factor for baseline electricity. Thus a further substantiation was asked.

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As an approach towards further substantiation of the fact, project proponent has submitted the revised final PDD, the fuel-specific emission factors used for determination of Carbon Emission Factor for baseline electricity and the reference towards the same as mentioned in final PDD has been cross checked with the traceable source of 'Indirect CO2 Emissions from the Consumption of Purchased Electricity' prepared by International Energy Agency (IEA) that are specific to Philippines and fuel type as referred by the project proponent, which are found satisfactory and those are applied to the baseline Emission Factor calculation properly as provided in spreadsheet named "Luzon Grid Emissions Calculations".

All the supportive calculations regarding baseline and emission reductions calculation have been compiled together in supporting document folder. It was checked by the local assessor and found that the emission factors are calculated in accordance with the methodology AMS-1.D (baseline option 9b): to calculate the weighted average emissions (in kg CO2e/kWh) of the current generation mix of 2006. The local assessor checked the background information used for calculating and the value of the calculated emission factor, i.e. 0.6138 tCO_2/MWh and found it satisfactory.

CAR 17 was closed out.

The assumptions, figures and calculation procedure for ex-ante emission reduction calculation was not properly elaborated in PDD version 01 and ex-ante emission reductions and detail calculation worksheet was not available for cross checking, thus for further substantiation CAR 18 was raised.

The project developer provided the detail calculation excel sheets for verifying all data and basis of the baseline emission factor calculations along with revised PDD version 02 but the entire clarification towards CAR 18 was not clear, thus a further elaboration has been asked from the project proponent.

The assumptions, figures and calculation procedure for ex-ante emission reduction calculation has been cross checked with reference to the updated ex-ante calculation work sheet named 'Montalban Calculations', calculation worksheet named "LandGEM Model" and revised final PDD and found satisfactory. The validation procedure maintained for the same as described below -

- The assumptions considered regarding Capacity of Electricity Generation with the CH4 Available, Consideration of installed capacity of the power generation activity, Project emissions calculation for flaring and on-site back up DG set operation for ex-ante CER calculations as provided in revised ex-ante calculation work sheet named 'Montalban Calculations' has been checked and found systematic and justified.
- The representation of projected landfill gas generation figures provided by the project proponent has been checked and the traceability of First-order decomposition rate equation based model "LandGEM, Landfill Gas Emissions Model, version 3.02 – U.S. Environmental Protection Agency" used for ex-ante calculation LFG generation figures has been checked and found verifiable.
- The basis and source of the year wise "waste acceptance rates" figures used as the input of the "LandGEM " model for calculation of ex-ante LFG generation projections has been cross checked with reference to the "Rodriguez Landfill Methane Recovery And Electricity Generation CDM Project - Feasibility Study Report" conducted by Japan Engineering Consultants Co., Ltd. during May 2007 (document reference no. 20) and the assumptions towards 2% growth factor has been also cross checked with reference to the capability statement of Expert Landfill Gas Reviewer appointed for the project activity and found satisfactory and thus accepted.
- The various assumptions and step wise (CERs from CH4 Destruction – Flaring, CERs from CH4 Destruction - Power Generation & CERs from Power Generation) Emission Reductions calculations as provided in spreadsheet named "CER Forecast" in Montalban Calculations worksheet has been checked and found justified and all the assumptions and step wise ex-ante calculation procedure has been properly reflected in final PDD.
- The description towards ex-ante calculation of emission reductions with the details of basis of LFG generation projections, baseline emissions, project emissions and leakage emissions in section B.6.3 of final PDD and the ex-ante assumptions made towards the same has been checked and found satisfactory as the project activity is yet to be commissioned.

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- The ex-ante calculations towards Carbon emission factor for electricity generation through on-site back-up DG sets and project emissions regarding the same as provided in ex-ante calculation sheet named "Montalban calculation" has been checked and the consideration of real time data for ex-post calculation regarding the same as mentioned in final PDD is now clear and satisfactory.

Thus, CAR 18 was closed out.

The assumptions made for ex-ante calculation of projected landfill gas generation figures provided as baseline information in annex 3 of PDD version 01 was not clear, thus CAR 28 was raised seeking further clarification.

The projected landfill gas generation figures provided in PDD has been calculated by the First-order decomposition rate equation based on US EPA LandGEM model with an input of assumed waste acceptance rate at the landfill site. Use of First-order decomposition rate equation based US EPA LandGEM model for calculation of expected LFG generation figures from the landfill site was found verifiable procedure and in line with the ACM0001 version 06.

The year wise waste acceptance rate at the landfill site as 3,000 tonnes per day considered towards the calculation of projected landfill gas generation values has been cross checked with reference to the JEC Feasibility study report, May 2007 (document reference no. 20) and the assumptions towards 2% growth factor has been also cross checked with reference to the capability statement of Expert Landfill Gas Reviewer appointed for the project activity and found satisfactory and thus accepted.

CAR 28 was closed out.

3.4 Application of Monitoring Methodology and Monitoring Plan

The present CDM project activity uses monitoring methodology as described in ACM0001 version 06 and AMS I.D. version 12

Description towards equations and assumptions regarding the project emissions calculation for flaring of landfill gases containing methane and a stationary combustion of diesel engine for on-site power generation has not clearly been provided in PDD version 01, thus CAR 15 was raised to seek further clarification.

The methodological choice towards project emission calculation from flaring of landfill gases as provided in final PDD has been checked and found justified and in line with ACM0001 version 01 and "Tool to determine project emissions from flaring gases containing Methane". The methodological choice towards project emission calculation from DG set operation as provided in final PDD and ex-ante calculation procedure has been checked and found satisfactory with requirement of ACM0001 version 6 and AMS-I.D. version 12 and NCV of the diesel oil and emission factor values for the same have been applied in line with the AMS-I.D. CAR 15 was closed out.

The description towards the ex-ante parameters available at validation in section B.6.2 of final PDD has been checked and found customized in accordance with the project scenario and all the non conformities have been rectified properly, which has been accepted. CAR 16 was closed out.

Description towards the data and parameters monitored provided in section B.7.1 of PDD version 02 was not appropriate and unclear, thus CAR 19 was raised to get full clarification. Project proponent has provided the clarified description towards the data and parameters required to be monitored at the ex-post scenario in final PDD, which has been checked and found complete and appropriate with ACM0001 version 06 and project monitoring plan. CAR 19 was closed out.

The overall authority and responsibility of project management and project registration in CDM modalities was not clearly described in PDD version 01, thus CAR 20 was raised to get the clarification regarding the same.

The overall responsibility of project management and authority for project registration in CDM modalities has been cross checked with reference to the Modalities of Communication dated 24 September 2007 and revised description of Monitoring Plan, Annexes 1 and 4 of final PDD and it is now clear that Montalban Methane Power Corporation Limited will be responsible for overall project management and Carbon Capital Markets Ltd will perform quality assurance on the data and ensure archiving of the data for the specified

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crediting period. Carbon Capital Markets Ltd, in partnership with MMPC, is responsible for and has authority of the registration of the Project Activity. CAR 20 was closed out.

Description of procedures regarding day-to-day records handling and review of the same was not clearly defined in monitoring plan of PDD version 01, thus NIR 21 was raised to get further description of project monitoring plan.

The description of project management modalities such as responsibility of members of the monitoring team, routine reminders for site staff, QA/QC procedures, service forms for data reporting, corrective action plans, maintenance plans and monitoring schedules as described in Section B.7.2. Description of the monitoring plan and Annex 4 of final PDD have been checked and found satisfactory and justified for the current project activity which is yet to start its commercial operation, thus, NIR 21 was closed out.

During the on-site validation it has been found that with reference to the LFG collection efficiency (estimated 65%) the expected installed power generation capacity will be up to 15 MW, during discussions it has also been revealed that at the first phase nine Turbine Generator sets (925 KW capacity each) will be installed and after successful implementation 9 TGs, subsequently the purchase order for another five or six TGs of same capacity each will be placed and installed. But the expected power generation scenario has been represented in the ex-ante calculation sheet considering total 15 MW from the day one, which was not in accordance with the project implementation plan. Thus CAR 27 was raised for the necessary rectification.

The representation of power generation scenario in revised ex-ante ER calculation sheet named “Montalban Calculations” has been rectified, where emission reduction projected values from power generation has been customised as per the progressive addition of Turbine Generator capacity up to 15 MW based on project availability of landfill gas and the same has been properly included in final PDD. Thus CAR 27 was closed out.

Description of landfill gas flaring systems to be implemented in project activity and project emissions calculation regarding LFG flairing was not clear in PDD version 01, thus CAR 29 was raised for further elaboration.

The calculation procedure of project emissions from three enclosed flaring system in accordance with the “Tool to determine project emissions from flaring gases containing Methane - EB28” has been properly described in Section B.6.1. - Explanation of methodological choices of the final PDD which is justified and in line with ACM0001 version 06. Thus CAR 29 was closed out.

The Power Purchase Agreement (PPA) with the local grid system as the requirement towards the evacuation of power to the state grid system, was not available during the validation site visit, the PPA is yet to be signed between the project proponent and relevant government authority. Thus NIR 30 was raised seeking further clarification regarding terms and condition of PPA towards electricity metering procedure, location of metering equipment(s), calibration of the metering equipment(s).

As the Power Purchase & Sale Agreement with the local grid system is under negotiation during the validation procedure and the project proponent has submitted the draft Power Purchase & Sale Agreement and a under taking dated 27 September 2007 regarding metering and calibration of the power.

It is evident from the draft Power Purchase & Sale Agreement and an undertaking of Montalban Methane Power Corporation dated 27 September 2007 that the project activity will be connected to the local Luzon Grid system. Montalban Methane Power Corporation will be responsible towards metering of power export to the grid and the periodic calibration of power metering system. This is accepted during ex-ante validation, though the terms and conditions of the signed Power Purchase & Sale Agreement need to be verified during ex-post verification.

Hence, NIR 30 was closed out.

The monitoring plan is in line with the monitoring methodology and monitoring the following parameters:

- Total amount of landfill gas captured
- Amount of landfill gas flared
- Amount of landfill gas combusted in power plant
- Methane fraction in the landfill gas

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- Project emissions from flaring of the residual gas stream in accordance with "Tool to determine project emissions from flaring gases containing methane" which requires the monitoring of
    - Volumetric fraction of component i in the residual gas in the hour h where i = CH4, CO, CO2, O2, H2, N2
    - Volumetric flow rate of the residual gas in dry basis at normal (NTP) conditions in the hour
    - Temperature in the exhaust gas of the enclosed flare
- Temperature (T) and pressure (P) of the landfill gas
- Net amount of electricity generated using LFG
- Amount of electricity imported from the grid used for plant start-up
- On-site power generation through back-up DG set
- CO2 emission factor of the grid electricity
- Regulatory requirements relating landfill gas projects
- Total amount of fossil fuel required to meet needs of 600 kW diesel generator
- Operating hours of the power plant

This can be concluded that the monitoring plan mentioned in the PDD is in conjugation with ACM0001 version 06 and AMS-I.D version 12.

3.5 Project Design

The Project Design Document (PDD) was developed according to template version 03.1 of PDD for large scale CDM project activity and designed as per version 06.2 of Guidelines for completing the project design document (CDM-PDD), and the proposed new baseline and monitoring methodologies (CDM-NMM) laid for preparing PDD of large scale CDM project activity hence the format of the present PDD was checked against it and found complying with the same.

The ownership of the project activity implementation at the existing sanitary landfill site was not clear, thus NIR 03 was raised seeking further explanation along with supporting documents.

The project ownership modalities of Municipality of Rodriguez regarding Methane Gas Recovery and Electricity Generation Project at Montalban Sanitary Landfill, scope of Karbon Kredit Philippines Inc. towards construction, installation and operation of the landfill gas recovery and electricity generation project under modalities of Clean Development Mechanism and further to that contract the scope of Montalban Methane Power Corporation of project implementation, operation and recovery of the methane gas at the project site has been cross checked with the reference to the following documents –

1. Document reference no. 35
2. Document reference no. 28
3. Document reference no. 27

Eligibility of Montalban Methane Power Corporation and Carbon Capital Markets Ltd. regarding development of CDM project at the designated site and ownership of carbon credits has been cross checked with reference to the –

1. Document reference no. 28
2. Declaration on behalf of the Municipality of Rodriguez, Rizal, Philippines dated 17th Oct 2007. /document reference no. 29/
3. Montalban Methane Power Corporation declaration dated 27 Sep 2007. /document reference no. 24/

With reference to the above mentioned documents it has been accepted that the Montalban Methane Power Corporation has the full legal authority to develop the landfill gas recovery and power generation CDM project activity at the existing Montalban Sanitary Landfill site and has the full ownership of the carbon

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credits to be generated from the proposed CDM project activity and Carbon Capital Markets Ltd. is the partner with MMPC in this project venture. Thus, NIR 03 was closed out.

The technical description of the project activity installation as provided in PDD version 01 was insufficient, more specific information and documentary evidences of technical specification of the project installations was required thus CAR 04 was raised seeking more specific technical specifications of the project technology installations.

The description of the project technology provided in the final PDD reveals the use of improved technology and more specific of the project installations. The technical specification of the project installations has been cross checked with reference to the following documents –

1. "Rodriguez Landfill Methane Recovery And Electricity Generation CDM Project - Feasibility Study Report" conducted by Japan Engineering Consultants Co., Ltd. during May 2007. /document reference no. 21/
2. Design, manufacture, supply & installation of materials, equipment & services to complete the landfill gas fired power generating plant contract signed between MMPC and Monark Equipment Corporation authorised by Notary Public for Makati City Rogelio A. Agoot (PTR No. 033/636) on 31st July 2007. /document reference no. 33/
3. Design, manufacture & supply of materials, equipment & services for the landfill gas collection, delivery & flaring system of the project activity contract signed between Montalban Methane Power Corporation (MMPC) and Organics Group Plc. /document reference no. 31/
4. Supply & installation of materials, equipment & services to complete the landfill gas collection, delivery & flaring system of the project activity contract signed between MMPC and Organics Asia Company Ltd. /document reference no. 32/
5. Proposals from Monark Equipment Corporation (Ref. E6-025F RLD dated 24 Jan 07, Ref. E7-015 RLD dated 12 July 07 Ref. E7-011B RLD dated 26th July 07). /document reference no. 34/

All the documents are found duly signed by the project proponent and the supplier/contractors and the description of Landfill gas collection system, Booster & flare package, Servicing & training, leachate extraction system, equipment supply details, Detailed performance criteria for the plant, Control concept, Plant specifications and energy generation equipments are found well justified of implementation of environmentally safe and sound technologies by the project activity. Thus, CAR 04 was closed out.

The consideration of CH4 and N20 emissions as the secondary emissions source due to fossil fuel use for to project activity within the project boundary in section B.3 of PDD version 1 was not clear and not according to the applied methodology ACM0001 version 6, thus NIR 05 was raised seeking further clarification.

The typographical error due consideration of CH4 and N2O emissions as the secondary emissions source due to fossil fuel use for to project activity within the project boundary as mentioned in section B.3 of PDD version 01 has been rectified in final PDD and has not been considered as emission sources, which is in turn supports the simplicity and conservativeness of the methodology as applied. Thus NIR 05 was closed out.

The technical specifications of the project installations as mentioned in the contract documents signed between project proponent and the supplier/contractors (Organics Group Plc. And Monark Equipment Corporation) for the project activity has been cross checked and found current good practice for project design engineering and satisfying in terms of implementation of updated technology, beside that the project proponent has submitted a documented undertaking dated 27 Sep 2007, thus its accepted that the project technology will not be substituted by other or more efficient technologies within the project period, which is found satisfactory. Thus, NIR 06 was closed out.

As the project activity is currently under construction and expected to start the functional operation in the near future, but no such planned schedule was available on the implementation of the project in version 01 of the PDD, thus NIR 07 was raised as planned project implementation schedule.

The project implementation schedule has been cross checked with reference to the following documents -

1. Appendix (b).2. of document reference no. 31

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2. Document reference no. 34

Further more the expected commissioning date of the LFG flaring facility as 12 Dec 2007 and full functional flaring operational by 29th December 2007 is evident from the letter from Organics Asia Co., Ltd. dated 5th Oct 2007. The commissioning date of the power house is expected by 1st April 2008, which is evident from the letter dated 08th Oct 2007 from Monark Equipments. The timeline towards the project implementation has been clearly described in final PDD. Hence, NIR 07 was closed out.

The yearly representations of projected emission reductions in section A.4.4 & B.6.4 of PDD version 01 were not clear and not in line with the guidelines for completing the project design document (CDM-PDD) version 06.2. Thus CAR 08 was raised.

The representation of yearly projected emissions reductions value provided in section A.4.4 & B.6.4 has been rectified in final PDD, which is clear now and in line with the crediting period start date and extent of the selected crediting period and guidelines for completing the project design document (CDM-PDD) version 06.2. Thus, CAR 08 was closed out.

The basis of consideration of project activity start date as mentioned in PDD version 01 was not clear, thus NIR 22 was raised to get further clarification.

The start date of the project activity as provided in final PDD has been validated as the date of design, manufacture, supply & installation of materials, equipment & services to complete the landfill gas fired power generating plant contract signed between MMPC and Monark Equipment Corporation. The project activity start date as 31/07/2007 was found satisfactory and in line with definition of "Starting date of a CDM project activity" provided by UNFCCC. Thus, NIR 22 can be closed out.

3.6 Environmental Impacts

NIR 23 and CAR 24 were raised to get the clarification of the compliance of the project activity with the local environmental legislative requirements and proper reference of non requirement of EIA study for the project activity under regulatory requirements respectively.

To check the compliance and integrity of the project activity with the local environmental and related legislative requirements, the copies of the Environmental Compliance Certificate (ECC) (ref. ECC0403-010-213 dated 25 Aug 04) obtained for the landfill site and No Objection Certificate (NOC) dated 21 Feb 07 from Department of Environment and Natural Resources (DENR) Republic of the Philippines for the power generation activity has been obtained from the project proponent and checked with original copies. All the documents were found in line with the local environmental and other applicable legislative requirements, thus the NIR 23 closed out.

As per PDD version 01, Environmental Impact Assessment study is not required under any legal compulsion for the project activity. To justify the non requirement of Environmental Impact Assessment study for the current project activity, the project proponent has provided the reference of The No Objection Certificate (NOC) dated 21 Feb 07 from DENR, Republic of the Philippines, for the power generation activity, but the NOC letter states "according to the DENR Administrative Order No. 2003-30, the project activity comes under 'Category C - Projects intended to directly enhance environmental quality or address existing environmental problems not falling under Category A or B." thus a further reference for DENR Administrative Order No. 2003-30 along with Category A, B & C was asked for better clarity.

As reply project proponent has submitted the Procedural Manual of DENR, Republic of the Philippines Administrative Order No. 2003-30 and definition of Category C project and applicability of EIA for the same has been cross checked with the Scope of the Philippine EIS System. The clarification of non applicability of mandatory EIA study for the Project activity (Category C) was verified and found satisfactory, thus CAR 24 was closed out.

3.7 Local Stakeholder Comments

NIR 25 and 26 were raised to get justification of the approach and procedure maintained during the local stakeholder consultation process.

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The local stakeholders consulted for the project activity were not clearly mentioned in PDD version 01. Thus a complete list of local stakeholders consulted has been requested and NIR 25 was raised. The description of local stakeholders consulted during the project inception stage has been updated in final PDD and the complete attendance list of the LSC meeting held on 12 July 2007, duly signed by the individual participants from the local community or the representative from local Government body and private organization who are linked with the project activity has been cross checked, which substantiate the transparency of the local stakeholder meeting. Thus NIR 25 was closed.

The procedure maintained of invitation of comments from local stakeholders and the procedure for compilation of comments from LSC meeting under CDM criteria has been cross checked with reference to the following documents –

1. six numbers project publicity articles published in local news paper dated 7th June and 8th June 2007 containing non-technical description of the project activity and consideration CDM modalities;
2. invitation letter to the Governor of Provincial Government of Rizal dated 29 July 2007;
3. photographs of promotional banners at the public place and promotional leaflets
4. detail power point presentation in English and local language which was presented during the Local Stakeholder Consultation meeting organised on 12 July 2007 and
5. complete attendance list of the LSC meeting duly signed by the individual participants has been obtained from the project proponent,
6. detailed minutes of the LSC meeting containing detailed programme agenda and points discussed during the meeting organised on 12 July 2007

According to final PDD, no negative comments were received from the stakeholders, which has been cross checked by interviewing the local stakeholders during on-site validation. It has been concluded that consultation of local stakeholders has been properly undertaken by the project proponent and procedure maintained of invitation of comments from local stakeholders and the procedure for compilation of comments from LSC meeting under CDM criteria is properly substantiated. Thus NIR 26 was closed out.

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4. Comments by Parties, Stakeholders and NGOs

In accordance with sub-paragraphs 40 (b) and (c) of the CDM modalities and procedures, the project design document of a proposed CDM project 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 project.

4.1 Description of How and When the PDD was Made Publicly Available

The PDD and the monitoring plan for this project were made available on the UNFCCC website http://cdm.unfccc.int/Projects/Validation/DB/PBDAK2T1IZSH1TKNLLPND3C5DKWXXF/view.html and were open for comments from 16th August 2007 to 14th September 2007. Comments were invited through the UNFCCC CDM homepage.

4.2 Compilation of all Comments Received

The project was up loaded for International stakeholder consultation (ISHC) for a period of 30 days and no comments were received.

4.3 Explanation of How Comments Have Been Taken into Account

Not applicable.

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5. Validation Opinion

SGS has performed a validation of the project: "Montalban Methane Recovery and Power Generation Project", at Rodriguez, province of Rizal, Philippines by Carbon Capital Markets Ltd. The Validation was performed on the basis of the UNFCCC criteria and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. Using a risk based approach, the review of the project design documentation and the subsequent follow-up interviews have provided SGS with sufficient evidence to determine the fulfilment of the stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria. The project will hence be recommended by SGS for registration with the UNFCCC.

SGS has received confirmation by the host Party that the project activity assists it in achieving sustainable development.

By capturing Landfill gas and destruction of methane content of LFG as fuel for generation of electricity, the project results in reductions of greenhouse gas emissions that are real, measurable and give long-term benefits to the mitigation of climate change. A review of the Investment analysis along with common practice analysis demonstrates that the proposed project activity is not a likely baseline scenario. Emission reductions attributable to the project are hence additional to any that would occur in the absence of the project activity. The project is yet to start its operation of flaring of landfill gas captured by 29th December 2007 and grid connected power generation through captured landfill gas by April 2008. The project activity is likely to achieve the estimated amount of emission reductions i.e. yearly average 589,993 tCO2e for the selected ten years fixed crediting period.

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

The DOE declares herewith that in undertaking the validation of this proposed CDM project activity it has no financial interest related to the proposed CDM project activity and that undertaking such a validation does not constitute a conflict of interest which is incompatible with the role of a DOE under the CDM.

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6. List of Persons Interviewed

Date	*Name*	*Position*	*Short description of subject discussed*
27-08-2007	Mr. Robert Renfrew	Operations Director	Technical description of the project activity. Project instrumentation and monitoring equipment details. Monitoring plan and reporting procedure.
27-08-2007	Mr. Napoleon M. Opiniano	AVP - Operations	Project proponents view on CDM project activity and project design and monitoring plan. Baseline and data monitoring for project activity, Board Minutes and IRR Calculation sheet. Local stakeholder consultation process, environmental and socio-economic well being aspects of the project activity.
28-08-2007	Mr. Napoleon M. Opiniano	AVP - Operations	Compliance of the project activity with the local environmental legislative requirements Relevant approvals and clearances for the project activity.
28-08-2007	Mr. Aris Hashim	Guard of the land fill facility	Awareness of the project activity and type and extent of socio- economic and environmental well being by the project activity.
28-08-2007	Mrs. Nancy Caro	Villager, Local stakeholder	Awareness of the project activity and type and extent of socio- economic and environmental well being by the project activity.
28-08-2007	Ms. Jocelyn Penapl	Villager, Local stakeholder	Awareness of the project activity and type and extent of socio- economic and environmental well being by the project activity.
28-08-2007	Mr. Nestor Caro	Villager, Local stakeholder	Awareness of the project activity and type and extent of socio- economic and environmental well being by the project activity.
28-08-2007	Mrs. Gloria San Jose	Villager, Local stakeholder	Awareness of the project activity and type and extent of socio- economic and environmental well being by the project activity.

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7. Document References

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

/1/ LoA from Host country (Philippines) DNA Ref. No. LOA-2008-053-WM042 dated 11 March 2008

/2/ LoA from Annex I country (UK) DNA, Ref. CCML/02/2008, dated 1st April 2008

/3/ Modalities of communication dated 24 Sep 2007

/4/ PDD version 1 dated 14th August 2007 (web hosted)

/5/ PDD version 2 dated 11th September 2007 (intermediate)

/6/ PDD version 3 dated 28th November 2007 (intermediate)

/7/ PDD version 4 dated 27th August 2008 (intermediate)

/8/ PDD version 5 dated 17th November 2008

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

/9/ "Montalban Calculations" worksheet containing ER and IRR calculations

/10/ The Garbage Book: Solid Waste Management in Metro Manila." Printed for the Department of Environment and Natural Resource in TA 3848-PHI: Metro Manila Solid Waste Management Project., Asian Development Bank, 2004

/11/ Technical Assistance Completion Report for TA 3848-PHI: Metro Manila Solid Waste Management (available at http://www.adb.org/Documents/TACRs/PHI/tacr-phi-3848.pdf, last accessed on 3rd Dec 07)

/12/ "Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines" by Grace P. Sapuay, Solid Waste Management Association of the Philippines (available at http://www.adb.org/Documents/TACRs/PHI/tacr-phi-3848.pdf, last accessed on 3rd Dec 07)

/13/ Solid Waste Inventory - National Solid Waste Management Commission, as of 1st Quarter Updates 2007 (available at http://www.denr.gov.ph/nswmc/6.php, last accessed on 3rd Dec 07)

/14/ Asian Development Bank Publication – "Philippines: Power Sector Profile and Roadmap by Geoffrey Brown, Jose Victor Emmanuel A. de Dios, and Helena S. Valderrama

/15/ National Power Corporation Effective Rates (http://www.napocor.gov.ph/npc5.asp last accessed on 3rd Dec07)

/16/ Chartered Accountant (ICAEW Membership no. 9179458) certification of the Project IRR values dated 28.11.2007

/17/ Seven year Philippine treasury bond rate of 6.5% from the Philippines Bureau of Treasury (available at http://business.inquirer.net/money/topstories/view_article.php?article_id=92047, last accessed on 3rd Dec 2007)

/18/ Power statistics data available at Philippines Department of Energy - Philippines Power Statistics: (available at http://www.doe.gov.ph/EP/Powerstat.htm , last accessed on 3rd Dec 07)

/19/ 'Indirect CO2 Emissions from the Consumption of Purchased Electricity' prepared by International Energy Agency (IEA - www.ghgprotocol.org/includes/getTarget.asp?type=d&id=MTczNDM , accessed on 3rd Dec)

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/20/ Luzon Grid Emissions Calculations

/21/ LandGEM calculation worksheet

/22/ "Rodriguez Landfill Methane Recovery And Electricity Generation CDM Project - Feasibility Study Report" conducted by Japan Engineering Consultants Co., Ltd. during May 2007

/23/ Capability statement of Expert Landfill Gas Reviewer

/24/ Draft Power Purchase & Sale Agreement

/25/ Declaration by Montalban Methane Power Corporation dated 27 Sep 07

/26/ MMPC Power Generation Declaration dated 27 Sep 07

/27/ Declaration of non involvement of ODA from Carbon Capital Markets dated 28th Nov 07

/28/ Memorandum of Agreement signed by The Province of Rizal, The Municipality of Rodriguez, Rizal and International Solid Waste Integrated Management Specialist Inc. dated 4th June 2007.

/29/ Deed of assignment signed between Karbon Kredit Philippines Incorporated and Montalban Methane Power Corporation with the consent of Municipality of Rodriguez, Rizal authorised by Notary Public for Makati City Atty. Lope M. Velasco on 16th March 2007.

/30/ Declaration on behalf of the Municipality of Rodriguez, Rizal, Philippines dated 17th Oct 2007.

/31/ Montalban Methane Power Corporation declaration dated 27 Sep 2007.

/32/ Design, manufacture & supply of materials, equipment & services for the landfill gas collection, delivery & flaring system of the project activity contract signed between Montalban Methane Power Corporation (MMPC) and Organics Group Plc.

/33/ Supply & installation of materials, equipment & services to complete the landfill gas collection, delivery & flaring system of the project activity contract signed between MMPC and Organics Asia Company Ltd.

/34/ Design, manufacture, supply & installation of materials, equipment & services to complete the landfill gas fired power generating plant contract signed between MMPC and Monark Equipment Corporation dated 31 July 2007.

/35/ Proposals from Monark Equipment Corporation (Ref. E6-025F RLD dated 24 Jan 07, Ref. E7-015 RLD dated 12 July 07 Ref. E7-011B RLD dated 26th July 07).

/36/ Contract Agreement signed between Municipality of Rodriguez and Karbon Kredit Philippines, Inc. for the Methane Recovery and Electricity Generation Project, Montalban Solid Waste Disposal Facility dated 10th August 2006.

/37/ Letter dated 08th Oct 2007 from Monark Equipments showing expected commissioning date of the power house.

/38/ Organics Asia Co., Ltd. declaration dated 5th Oct 2007 showing expected commissioning date of flaring operation.

/39/ No Objection Certificate (NOC) dated 21 Feb 07 from Department of Environment and Natural Resources (DENR) Republic of the Philippines

/40/ Environmental Compliance Certificate (ECC) (ref. ECC0403-010-213 dated 25 Aug 04

/41/ Procedural Manual of Department of Environment and Natural Resources (DENR) Republic of the Philippines Administrative Order No. 2003-30

/42/ Six numbers project publicity articles published in local news paper dated 7th June and 8th June 2007 containing non-technical description of the project activity and consideration CDM modalities

/43/ Invitation letter to the Governor of Provincial Government of Rizal dated 29 July 2007

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/44/ Photographs of promotional banners at the public place and promotional leaflets

/45/ Detail power point presentation in English and local language which was presented during the Local Stakeholder Consultation meeting organised on 12 July 2007

/46/ Detail minutes of the LSC meeting containing detailed programme agenda and points discussed during the meeting organised on 12 July 2007

/48/ Complete attendance list of the LSC meeting dated 12 July 2007

/49/ Ecological Solid Waste Management Act of 2000 (RA9003)

/50/ ACM001 version 06

/51/ AMS-I.D. version 11

/52/ Methodological Tool to determine project emissions from flaring gases containing Methane, EB 28 report, annex 13

/53/ Tool for the demonstration and assessment of additionality – Version 3

/54/ Guidelines for completing the project design document (CDM-PDD) version 06.2

/55/ Declaration letter of rectification of LOA from Project Proponent dated 02.04.2008

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A.1 Annex 1: Local Assessment

Table 12 Additional information to be verified by local assessors / site visit

CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
1. Status of Host Country Approval process of the project activity to be checked.	PDD	I	The application of Host Country endorsement procedure is yet to be initialised. Letter of approvals from Investor Country (UK) and Host Country (Philippines) Designated National Authority are pending.	Pending CAR 01	Y
2. The technical description of the project activity has to be checked.	PDD	I	According to the discussions held with the project proponent during site visit, the project activity comprises of effective landfill gas recovery from the Montalban landfill site through gas collection system (piping, 2 gas pumping system), and the recovered gas will be utilised at the gas turbines to generate electricity. The project plan also includes gas flaring system which will include 3 gas flaring sytems. With reference to the LFG collection efficiency (estimated 65%) the expected installed power generation capacity will be upto 15 MW, during discussions it has also been revealed that at the first phase nine TG sets (925 KW capacity each) will be installed and after successful implementation 9 TGs, the purchase order for another five or six TGs of same capacity each will be placed and installed. The project proponent should customized the power generation scenario in accordance with the project implementation plan during calculation of ex-ante emission reductions value instead of considering total 15 MW from the day one.	CAR 27	Y
3. Actual situation of project implementation or planning of the technical description of the project activity has to	PDD	I	Currently the total area of Montalban landfill site is 14 ha and another additional 19 ha of area is under process of	Y	Y

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
be checked.			procurement. The existing landfill site has been marked as 'bed-1' & 'bed-2'. The 'landfill covering' of the 'bed-1' has been done and ready for drilling. The drilling of LFG capturing wells will be expected to start by the end of Sept 2007, the location of the wells have been identified and marked at the 'bed-1' of the landfill site. The land preparation for the power plant site was being done at the time of validation site visit. At the first phase 50 - 55 LFG recovery wells to be drilled and nine TG sets (925 KW capacity each) will be installed. The purchase orders of gas collection system, power generation and transmission (nine TGs, high voltage switching), and the monitoring meters has been placed and valid suppliers contract for the same are available.		
4. Project activity's contribution of Sustainable Development issues has to be cross checked.	PDD	I	According to the feedback received from the local stakeholders interviewed during the site visit, the project activity will improve the environmental situation and also will be beneficial of social and economic well being in terms of generation of direct or indirect employment, development of local business, availability of power etc.	Y	Y
5. The environmental aspects and impacts by the project activity have to be checked during the site visit.			According to the feedback received from the local stakeholders the project activity will not create any adverse environmental effects and no trans-boundary environmental impacts have been identified. The mitigation plan for identified environmental impacts due to the project activity has been addressed in PDD version 01 is expected to be logical.	Y	Y

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
6. Project investment details and relevant financial documents for the project activity to be checked for involvement of any assistance from Annex I countries or ODA.	PDD	I	The estimated project capital cost involvment is roughly 33 million USD, but no indication was found regarding any involvement of any assistance from Annex I countries or ODA in the project financing. But the relevant document for project investment details, detail project financing plan has to be submitted by the project proponent in response to CAR 9.	Pending CAR 9	Y
7. The assumption of the baseline scenario	PDD	I	According to the discussions held with the project proponent and the local expert the prevailing scenario at the solid waste management facilities/ landfill sectors the landfill gas is emitted into the atmosphere without capture and flare or utilization of landfill gas for health and safety, power generation, or heat production purposes. But no proper traceable documentary evidences are available in supporting to the fact. The project proponent has to provide the proper documentary evidence of establishment of baseline scenario of the project activity.	Pending CAR 13	Y
8. The baseline information in annex 3 in PDD version 01	PDD	I	No such supporting documents were available of the assumptions made for representation of projected landfill gas generation figures provided as baseline information in annex 3 in PDD version 01, during the site visit. The project proponent has to provide the proper documentary evidence of the same.	CAR 28	Y
9. Waste collection procedure to be checked	PDD	I	The waste from entire Metro Manila region being brought down to the landfill site by the landfill site operators (International SWIMS), which is not under the jurisdiction of project proponent.	Y	Y
10. Project emissions consideration of pupming	PDD	DR/I	According to the project design, discussed during the site visit,	CAR 29	Y

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
system of landfill gases and flaring of landfill gases containing methane within the project boundary, to be verified.			there will be three enclosed type flairing systems. Clear description of landfill gas flaring systems has to be provided in PDD and project emissions calculation should consider the same in accordance with the methodology and applicable methodological tool.		
11. The regulatory approval under national or local environmental legislations is required to verify that local/legal environmental requirements have been met.	PDD	DR	The copy of Environmental Compliance Certificate (ref. ECC0403-010-213 dated 25 Aug 04) obtained for the landfill site and NOC from Department of Environment and Natural Resources, Republic of the Philippines has been obtained and checked with original copies. It was found to be transparent.	Y	Y
12. Documents to be checked, regarding the applicability of EIA study under Host Country legislative requirement for the current project activity.	PDD	DR	The project proponent has provided the ECC (ref. ECC0403-010-213 dated 25 Aug 04) obtained for the landfill site and NOC dated 21 Feb 07 from Department of Environment and Natural Resources (DENR) Republic of the Philippines, which states according to the DENR Administrative Order No. 2003-30, the project activity comes under 'Category C - Projects intended to directly enhance environmental quality or address existing environmental problems not falling under Category A or B.' But proper traceabe reference of non requirement of EIA study for the project activity is not clear.	Pending CAR 24	Y
13. The requirement of local stakeholder consultation process under regulation/laws in the host country has to be checked. is not clear in PDD version 01.	PDD	I	The non requirement of local stakeholder consultation process under regulation/laws of the host country as part of the EIA study has been cross checked with reference to the Environmental Compliance Certificate (ECC) (ref. ECC0403-010-213 dated 25 Aug 04) obtained for the landfill site and No Objection Certificate (NOC) dated 21 Feb 07 from Department of Environment and Natural Resources (DENR) Republic of the Philippines for the	Y	Y

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CHECKLIST QUESTION	Ref.	MoV*	COMMENTS	Draft Concl	Final Concl
			power generation activity, which is found justified and satisfactory.		
14. Power Purchase Agreement to be checked for the terms and issues associated to the power evacuation to the State Grid system.	PDD	I	The PPA as the requirement of the evacuation of power to the state grid system, was not available during the validation site visit, the PPA is yet to be signed between the project proponent and relevant government authority. Proper PPA has to be provided by the project proponent and the relevant terms and conditions under PPA should be included under project design (such as metering, calibration etc.) and revenue consideration.	NIR 30	Y
15. It is required to be checked whether the project technology used is likely to be substituted by other or more efficient technologies within the project period.	PDD	DR	Project proponent submitted an undertaking that the project activity will not be substituted by other or more efficient technologies within the entire project crediting period.	Y	Y
16. The exact start date of the project activity to be validated.	PDD	DR	According to the PDD version 01, the project start date has been described as 30-Sep-07, which is a future date, but no proper project implementation schedule was available during site visit. Project proponent has to provide proper planned project implementation schedule of the supporting of project start date.	Pending NIR 7	Y
17. Requirement of initial extensive training or maintenance in order to functional operation of the project activity	PDD	I	No such planning of initial extensive training or maintenance has been identified but the planning of periodic training module to the project personnel for functional operation of the project activity has been planned substantiated through contarct agreements signed between the supplier/contractors for the project equipments and the project proponet.	Y	Y

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A.2 Annex 2: Validation Protocol

Table 1 Participation Requirements for Clean Development Mechanism (CDM) Project Activities (Ref PDD, Letters of Approval and UNFCCC website)

REQUIREMENT	REFERENCE	COMMENTS	CONCLUSION
1. All Parties (listed in Section A3 of the PDD) have ratified the Kyoto protocol and are allowed to participate in CDM projects	Marrakech Accords, CDM Modalities §30	Project is bilateral involving United Kingdom of Great Britain and Northern Ireland as the Annex I investor country which have ratified the protocol on 31 May 2002 and Philippines as non-Annex I host country, which have ratified the protocol on 20 November 2003 and is allowed to participate. United Kingdom of Great Britain and Northern Ireland: http://unfccc.int/parties_and_observers/parties/annex_i/items/2774.php http://maindb.unfccc.int/public/country.pl?country=GB Philippines: http://unfccc.int/parties_and_observers/parties/non_annex_i/items/2833.php http://maindb.unfccc.int/public/country.pl?country=PH	Y
2. The project shall assist Parties included in Annex I in achieving compliance with part of their emission reduction commitment under Art. 3 and be entered into voluntarily.	Marrakech Accords, CDM Modalities §29 and §30	Letter of approvals from Investor Country (UK) and Host Country (Philippines) Designated National Authority (DNA) to be submitted by the project proponent.	CAR 01 CAR 01 closed out
3. The project shall assist non-Annex I Parties in achieving sustainable development and shall have obtained confirmation by the host country thereof, and be entered into voluntarily	Marrakech Accords, CDM	According to the details provided in PDD version 01, the project activity is likely to	

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REQUIREMENT	REFERENCE	COMMENTS	CONCLUSION
	Modalities §29 and §30 Kyoto Protocol Art. 12.2, Marrakech Accords, CDM Modalities §40a	contribute of Sustainable Development issues. Letter of approvals from Investor Country (UK) and Host Country (Philippines) Designated National Authority (DNA) to be submitted by the project proponent.	Pending CAR 01 CAR 01 closed out
4. Parties, stakeholders and UNFCCC accredited NGOs shall have been invited to comment on the validation requirements for minimum 30 days, and the project design document and comments have been made publicly available	Marrakech Accords, CDM Modalities, §40	The project is listed on UNFCCC website from 16th August 2007 to 14th September 2007. http://cdm.unfccc.int/Projects/Validation/DB/PBDAK2T1IZSH1TKNLLPND3C5DKWXXF/view.html The project was also listed on SGS climate change website from 16th August 2007 to 14th September 2007. www.sgsqualitynetwork.com/tradeassurance/ccp/projects/project.php?id=323 Number of comments received - 0	Y
5. The project design document shall be in conformance with the UNFCCC CDM-PDD	Marrakech Accords, CDM Modalities, Appendix B, EB Decisions	The most recent version of the CDM-PDD template (version 03.1) has been used and applied appropriately with reference to the most recent version of guidelines for completing the project design document (CDM-PDD) version 06.2.	Y
6. The project participants shall submit a letter on the modalities of communication (MoC) before submitting a request for registration	EB-09 F_CDM_REG form	The appropriate Modalities of Communication has to be submitted by the project proponent.	CAR 02 CAR 02 closed out
7. For AR projects, the host country shall have issued a communication providing a single definition of minimum tree		Not relevant as the project is not an AR	-

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REQUIREMENT	REFERENCE	COMMENTS	CONCLUSION
cover, minimum land area value and minimum tree height. Has such a letter been issued and are the definitions consistently applied throughout the PDD?		project.	

Table 2 PDD

CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A. General Description of Project Activity					
A.1. Project Title					
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	1	DR	The title of the project activity "Montalban Landfill Methane Recovery and Power Generation Project" is clear and self explanatory of the unique CDM activity.	Y	Y
A.1.2. Are there an indication of a revision number and the date of the revision?	1	DR	The current PDD indicates the version number and date of the version in section A.1 appropriately.	Y	Y
A.1.3. Is this in consistency with the time line of the project's history?	1	DR	The proposed CDM project activity is a future project and the version number and date of the version as provided in current version of the PDD is consistent with time line of the project's history.	Y	Y
A.2. Description of the project activity					
A.2.1. Is the description delivering a transparent overview of the project activities?	1 & 7	DR	The version 01 of the PDD provides information of purpose of the project activity, type of technology used and contribution of sustainable development.	Y	Y
A.2.2. Is all information provided in compliance with actual situation or planning?	1&7	DR	▪ According to the description provided in version 01 of the PDD of the purpose and design of the project activity has to be	Pending site visit	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			verified during the validation site visit. ▪ The assumption of the baseline scenario is not clear and supporting documentary evidence has not been provided by the project proponent. Same has to be verified during validation site visit. (*For detail discussion please refer section B Table 2*) ▪ The technical description of the project activity is insufficient, more specific technical information and technical specification has to be provided by the project proponent. Same has to be verified during validation site visit. (*For detail discussion please refer section A.4 of Table 2*) ▪ The claim regarding the contribution of the sustainable development has to be cross checked during the validation site visit.		
A.2.3. Is all information provided consistent with details provided in further chapters of the PDD?	1	DR	All information of description of project activity, provided consistent with details provided in further chapters of the PDD version 01.	Y	Y
A.3. Project Participants					
A.3.1. Is the table required for the indication of project participants correctly applied?	1	DR	The table in section A.3 of the version 01 of the PDD required for the indication of project participants has been applied correctly.	Y	Y
A.3.2. Is all information provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1	DR	All the information regarding project participants is consistent with details provided by further chapters of the PDD (in particular annex 1: contact information on participants in the project activity).	Y	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
A.4. Technical description of the project activity					
A.4.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	1	DR	The detail information provided on the location of the project activity is satisfactory and allow for a clear identification of the site.	Y	Y
A.4.2. Do the project participants possess ownership or licenses which will allow the implementation of the project at that site / those sites?	1	DR	The project participants have to provide the applicable ownership documents or licenses which will allow the implementation of the project at that site.	NIR 03	Y
A.4.3. Is the category (ies) of the project activity correctly identified?	1, 2 & 3	DR	The PDD version 01 for the project activity has been framed with reference to the following Sectoral scopes, which has been identified correctly. Sectoral scope 13: Waste handling and disposal and Sectoral scope 1: Energy industries (renewable/non-renewable sources)	Y	Y
A.4.4. Does the project design engineering reflect current good practices?	1	DR	The technical description of the project activity is insufficient, more specific technical information and technical specification has to be provided by the project proponent to establish the transfer of environmentally safe and sound technologies and know-how by the project activity.	CAR 04	Y
A.4.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance and is the explanation how the project will reduce greenhouse gas emission transparent and suitable?	1	DR	The description of the technology to be applied provides information of the explanation how the project will reduce greenhouse gas emissions related to the baseline scenario, project scenario has been provided in PDD version 01, but justification for consideration of CH_4 and N_20 emissions as the secondary emissions source due to fossil fuel use for to project activity under	NIR 05	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			project boundary and its implementation in emission reductions calculation is not clear.		
A.4.6. Is all information provided in compliance with actual situation or planning as available by the project participants?	1	DR	Actual situation or planning of the technical description of the project activity has to be checked during the site visit.	Pending site visit	Y
A.4.7. Does the project use state of the art technology or would the technology result in a significantly better performance than any commonly used technologies in the host country?	1	DR	The description of the project technology provided in the version 01 of the PDD claims the use of improved technology by the project activity, same needs to be cross checked during the site visit.	Pending site visit	Y
A.4.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	1	DR	No such indication has been provided in version 01 of the PDD; documentary proof for the same has to be submitted by the project proponent.	NIR 06	Y
A.4.9. Does the project require extensive initial training and maintenance efforts in order to work as presumed during the project period?	1	DR	Requirement of initial extensive training or maintenance in order to functional operation of the project activity has not been clearly provided in version 01 of the PDD. Same has to be checked during site visit.	Pending site visit	Y
A.4.10. Does the project make provisions for meeting training and maintenance needs?	1	DR	The monitoring plan of the project activity provide indication of the provisions for meeting training and maintenance needs, as this is a future project, all records regarding training materials and information about the timing of completed trainings would be provided during verification.	Y	Y
A.4.11. Is a schedule available on the implementation of the project and are there any risks for delays?	1	DR	No such planned schedule is available on the implementation of the project in version 01 of the PDD; the project proponent has to provide the same. Any risks for delays in project implementation	NIR 07 Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			schedule have to be discussed during the site visit.	site visit	
A.4.12. Is the table required for the indication of projected emission reductions correctly applied?	1& 6	DR	The table at section A.4.4 and B.6.4 required for the indication of projected emission reductions does not applied correctly – • At section A.4.4 & B.6.4 the yearly representation table of projected emission reductions are not clear. • At section B.6.4 the yearly representation table of projected emission reductions is not in line with the guidelines for completing the project design document (CDM-PDD) version 06.2.	CAR 08	Y
A.5. Public Funding					
A.5.1. Does the information on public funding provided conform with the actual situation or planning as presented by the project participants?	1& 7	DR	Though no such information regarding public funding and ODA involvement in project financing not been identified in PDD version01, but detail information regarding clear and transparent finance plan is absent in PDD version 01. The detail financing plan of the project activity to be provided by the project proponent.	CAR 09	Y
A.5.2. Is all information provided consistent with details provided by further chapters of the PDD (in particular annex 2)?	1	DR	Pending CAR 09	Pending	Y
A.5.3. 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	1	DR	Pending CAR 09	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B. **Baseline and Monitoring Methodology**					
B.1. Choice and Applicability					
B.1.1. Is the baseline methodology previously approved by the CDM Methodology Panel?	1&2	DR	Section B.1 of the PDD version 01, provides the complete reference and version number of the approved methodology as applicable – ACM0001: "Consolidated baseline methodology for landfill gas project activities" version 6 and AMS I.D "Grid connected renewable electricity generation" Version 12.	Y	Y
B.1.2. Is the baseline methodology the one deemed most applicable for this project?	1&2	DR	Justification of the choice of the methodology and its applicability has been properly described and justified in Section B.3 of the PDD version 01, which is in line with the applicability criteria of ACM0001 ver 06 and AMS I.D. ver12 as applied.	Y	Y
B.1.3. Is the choice of the methodology correctly justified by the PDD and is the project in conformance with all applicability criteria of the applied methodology?	1&2	DR	Project meets all applicability criteria as per the methodologies used.	Y	Y
B.2. Project boundary					
B.2.1. Are all emission sources and gasses related to the baseline scenario, project scenario and leakage clearly identified and described in a complete manner?	1, 2 & 3	DR	The description of all emission sources and gasses related to the baseline scenario, project scenario has been provided in PDD version 01, but justification for consideration of N_20 emissions due to fossil fuel in project activity is not clear. Pending NIR 05	Pending	Y
B.2.2. In case of grid connected electricity projects: Is the relevant grid correctly identified in accordance with	1, 2 & 3	DR	A part of the project activity is a grid connected electricity project, but no information regarding	CAR 10	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
EB guidance and the underlying methodology?			identification of relevant grid system, in accordance with EB guidance and the underlying methodology, has been provided by the PDD version 01.		
B.2.3. Are the project's spatial boundaries (geographical) and the project's system boundaries (components and facilities used to mitigate GHGs) clearly defined?	1&2	DR	Description of project's system boundary is not clearly provided in the version 01 of the PDD.	CAR 11	Y
B.3. Identification of the Baseline Scenario					
B.3.1. Does the PDD discuss the identification of the most likely baseline scenario? Does the PDD follow the steps to determine the baseline scenario required by the methodology and is the application of the methodology and the discussion and determination of the chosen baseline transparent?	1&2	DR	Identification of all potential realistic and credible baseline alternatives for LFG emission and power generation and justification of screening of most plausible baseline scenario as described in section B.4 of the PDD version 01, is not clear and not in line with the methodology ACM0001 version 06.	CAR 12	Y
B.3.2. Does the application consider all potential realistic and credible baseline scenarios in the discussion taking into account relevant national and/or sectoral policies, macro-economic trends and political aspirations??	1&2	DR	The consideration of all potential realistic and credible baseline alternatives is not clearly described. Pending CAR 12	Pending	Y
B.3.3. Is the choice of the baseline compatible with the available data?	1&2	DR	The consideration of all potential realistic and credible baseline alternatives is not clearly described in PDD version 01. The selection of the baseline from the possible scenarios (and the exclusion of the other scenarios) should be provided in consistent with available (public) data.	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			All key assumptions should be explained and information sources should be clearly referenced. Pending CAR 12		
B.3.4. Is conservativeness addressed in the way of identifying the baseline?	1&7	DR	Of consideration of most conservative baseline scenario, the relevant available data interpretation to be provided by the project proponent for a conservative determination of the emission reductions. Pending CAR 12	Pending	Y
B.3.5. Does the selected baseline represent the most likely scenario among other possible and/or discussed scenarios?	1&2	DR	Description of the selected baseline scenario as the most likely scenario among other possible and/or discussed scenarios, provided in PDD version 01, is not appropriate and convincing. Pending CAR 12	Pending	Y
B.4. Additionality					
B.4.1. Does the PDD clearly demonstrate the additionality using the approach as given by the methodology and by following all the required steps?	1&4	DR	The additionality of the project activity has been discussed with reference to the "Tool for the demonstration and assessment of additionality – Version 3" in PDD version 01, for detail discussion on additionality check please refer B.4.2.	Y	Y
B.4.2. In case of using the additionality tool: Are all steps followed in a transparent manner?	1&4	DR	According to the version 01 of the PDD, the project additionality has been discussed with reference to the "Tools for the demonstration and assessment of additionality" (version 3) EB 29. All the steps of additionality tool have been followed, but the facts described of step 1:	CAR 13	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			Identification of alternatives to the project activity; step 2: Investment analysis and step 4: common practice analysis are not clear any transparently documented and justified.		
B.4.3. Is the discussion on additionality and the evidence provided consistent with the starting date of the project	1&4	DR	The discussion on additionality and the evidence provided consistent with the starting date of the project activity, as the project is a future activity and the starting date (30 September 2007) as mentioned in PDD version 01 is also a future date during the time of validation.	Y	Y
B.4.4. Is the discussion on additionality consistent with the identification all potential realistic and credible baseline scenarios	1&4	DR	• In sub-step 1a, selection of most likely baseline scenario is not clear as identification of possible project alternatives are not in line with "Tools for the demonstration and assessment of additionality" (version 3) and the justification of screeing of potential realistic and credible baseline alternatives, are not appropriate. • In sub-step 1b, description of consistency with mandatory laws and regulations for the baseline alternatives consideration is not clear and explanations of systematically not enforced applicable legal or regulatory requirements and widespread non compliance with those applicable legal requirements in the country with reference to the current practice in the country has not been justified through proper documentary evidence. Pending CAR 13.	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.4.5. If an investment analysis has been used, has it been shown that the proposed project activity is economically or financially less attractive than at least one other alternative without the revenue from the sale of CERs?	1&4	DR	Investment analysis for the project activity is not clear - • No project IRR value considering CDM benefit has been provided. • Assumptions made during the IRR calculation has not been described properly. • No benchmark value has been referred during benchmark analysis. • Sensitivity analysis is not clear as consideration of 10% increase in project revenue and reduction in project cost is also not transparent. Pending CAR 13	Pending	Y
B.4.6. If a barrier analysis has been used, has it been shown that the proposed project activity faces barriers that prevent the implementation of this type of proposed project activity but would not have prevented the implementation of at least one of the alternatives?	1&4	DR	Barrier analysis has not been used by this project activity for establishment of project additionality.	Y	Y
B.4.7. Has it been shown that the project is not common practice?	1&4	DR	Sufficient justified information and proper supporting documentary evidences have not been provided while describing common practice analysis. Pending CAR 13	Pending	Y
B.4.8. Is it demonstrated/justified that the project activity itself is not a likely baseline scenario	1&2	DR	According to the discussions provided in PDD version 01 of project additionality and the explanation of the project is not the most likely base line is not clear.	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			Pending CAR 13		
B.5. Application of the baseline methodology					
B.5.1. Has the approved methodology been applied correctly for determining baseline emissions?	1,2 & 3	DR	The PDD version 01 has used the ACM0001 version 6 during determination of emission reductions. But the choice of methodological choice has not been represented properly. • The equation for GHG emission reductions calculation and explanation of the same has not represented in line with the methodology. • Documentation of calculations and considerations for the parameter $MD_{project,y}$ - "the amount of methane that would have been destroyed/combusted during the year" is not properly represented and not in line with the ACM0001 ver6. • The choice of methodology and justification of GHG emission reductions calculation has not been documented in customized manner (in case of CO_2 emission factor for baseline electricity and CO_2 emission factor for project electricity consumption scenario) with reference to the project activity. • The consideration and basis of calculation of CO_2 emission factor for baseline electricity generation has not been properly provided and the basis of application of AMS.I.D ver12 ((whether Combined Margin or Weighted average emissions of current generation mix)	CAR 14	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			regarding the same is not also clear. • No calculation worksheet with traceable references for CO_2 emission factor of baseline electricity generation applying AMS.I.D ver12 is available for cross check.		
B.5.2. Has the approved methodology been applied correctly for determining project emissions?	1&2	DR	According to the PDD version 01, Project Emissions (PE) will be from flaring of landfill gases containing methane and a stationary combustion of diesel engine for on-site power and the emissions from flaring of landfill gases containing methane following the procedure described in the "Tool to determine project emissions from flaring gases containing Methane", but the clear description of equations and assumptions regarding the project emissions calculation has not been documented.	CAR 15	Y
B.5.3. Has the approved methodology been applied correctly for determining leakage?	1&2	DR	According to the ACM0001 version 6, no leakage effects need to be accounted, and this fact has been properly represented in PDD version 01.	Y	Y
B.5.4. Where applicable, has the approved methodology been applied correctly for the direct calculation of emission reductions	1&2	DR	Pending CAR 14	Pending	Y
B.5.5. Have all the methodological choices been explained, have they been properly justified and are they correct?	1&2	DR	The choice of methodological choice has not been represented properly in PDD version 01. Pending CAR 14	Pending	Y
B.5.6. Are uncertainties in the GHG emissions estimates properly addressed in the documentation?	1	DR	The description of methodological choice has not been represented properly in PDD version 01 and no such information regarding uncertainties in the calculations, data sources or assumptions been discussed.	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			Pending CAR 14		
B.6. Ex-ante data and parameters used					
B.6.1. Are the data provided in compliance with the methodology?	1&2	DR	The description of the ex-ante parameters available at validation in section B.6.2 of PDD version 01 is not customized in accordance with the project scenario. • Consideration of "AF", "$CEF_{electricity}$ " and "$CEF_{thermal}$ " is not clear. • Standard default values "$EF_{fuel,PR}$" ; "$NCV_{fuel,PR}$" of project emissions has not been included.	CAR 16	OK
B.6.2. Is all the data derived from official data sources or replicable records and have these been correctly quoted?	1&2	DR	The data source and basis of the value for CO_2 emission factor for baseline electricity generation is not clear.	CAR 17	Y
B.6.3. Is the vintage of the baseline data correct?	1	DR	Pending CAR 14 & CAR 17	Pending	Y
B.7. Calculation of Emissions Reductions					
B.7.1. Has the approved methodology been applied correctly for determining emission reductions?	1	DR	The PDD version 01 has used the ACM0001 version 6 during determination of ex-ante emission reductions. But the application of the methodology is not clear. • Calculation basis of the ex-ante emission reductions projection is not transparent. • The verifiable detail information regarding US EPA decay model equation used for ex-ante estimation of baseline landfill gas emissions	CAR 18	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			has not been provided. • The input factors used and sources of the input factors used of ex-ante emission reductions calculations are not clearly provided. • Information regarding power baseline emissions has not been provided. • How the project emissions has been considered and equations used for the same has not been mentioned. • No ex-ante emission reduction calculation worksheet is available for cross check.		
B.7.2. Are the emission reduction calculations documented in a complete and transparent manner?	1	DR	The documentation of emission reduction calculations is not clear. Pending CAR 18	Pending	Y
B.7.3. Have conservative assumptions been used to calculate emission reductions?	1	DR	The documentation of emission reduction calculations is not clear and no ex-ante emission reduction calculation worksheet is available for cross check. Pending CAR 18	Pending	Y
B.7.4. Is the projection based on provable input parameter?	1	DR	The input factors used and sources of the input factors used of ex-ante emission reductions calculations are not clearly provided in PDD version 01. Pending CAR 18	Pending	Y
B.7.5. Is the projection based on same procedures as used for later monitoring or acceptable alternative models?	1	DR	The ex-ante emission reduction projections has been used the US EPA decay model equation used for ex-ante estimation of baseline landfill	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			gas emissions, which is different from the procedures as will be for later monitoring. The acceptability of the model to be justified. Pending CAR 18		
B.7.6. Is the calculation of the emission reduction correct?	1&2	DR	No ex-ante emission reduction calculation worksheet is available for cross check. Pending CAR 18	Pending	Y
B.8. Emission Reductions					
B.8.1. Will the project result in fewer GHG emissions than the baseline scenario?	1	DR	Calculation basis of the ex-ante emission reductions projection is not transparent. Pending CAR 18	pending	Y
B.8.2. Is the form/table required for the indication of projected emission reductions correctly applied?	1	DR	The table at section A.4.4 and B.6.4 required for the indication of projected emission reductions does not applied correctly. Pending CAR 08	Pending	Y
B.8.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	1	DR	The projection of emission reductions (01.10.2007 to 30.09.2017) in line with the envisioned time schedule for the project's implementation and the indicated crediting period as the project start date has been described as 30.09.07 and fixed 10 years of crediting period has been selected in PDD version 01.	OK	Y
B.9. Monitoring Methodology					
B.9.1. Does the monitoring methodology provide a consistent approach in the context of all parameter to be monitored and further information provided by	1&2	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project	CAR 19	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
the PDD?			scenario. • The description of the data/ parameter to be monitored is not clear. • Consideration of "ET_{PR}" ; "$CEF_{elec,BL}$" ; "$EF_{fuel,PR}$" ; "$NCV_{fuel,PR}$" ; "ET_y" is not clear. • Non inclusion of parameter $\varepsilon_{gen.PR}$ - "efficiency of captive power generation plant" of calculation of project emissions is not clear.		
B.9.2. Does the monitoring methodology apply consistently the choice of the option selected for monitoring both of project and baseline emissions?	1	DR	Pending CAR 14, CAR 18 and CAR 19	Pending	Y
B.10. Data and parameters monitored					
B.10.1. Does the monitoring plan provide for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	1	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project scenario. Pending CAR 18	Pending	Y
B.10.2. Are the choices of project GHG indicators reasonable and in conformance with the requirements set by the approved methodology applied?	1	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project scenario. Pending CAR 18	Pending	Y
B.10.3. Will it be possible to determine the specified project GHG indicators?	1	DR	Pending CAR 18	Pending	Y
B.10.4. Will the indicators enable comparison of project data and performance over time?	1	DR	Pending CAR 18	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.10.5. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	1	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project scenario. Pending CAR 18	Pending	Y
B.10.6. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	1	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project scenario. Pending CAR 18	Pending	Y
B.10.7. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	1	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project scenario. Pending CAR 18	Pending	Y
B.10.8. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	1	DR	Pending CAR 15	Pending	Y
B.11. Quality Control (QC) and Quality Assurance (QA) Procedures					
B.11.1. Is the selection of data undergoing quality control and quality assurance procedures complete?	1	DR	The selected data/parameters will be meeting the reliable QA-QC procedure through regular calibration by competent agency and maintenance of monitoring equipments, confirmation of relevant government departments for secondary legal requirement data monitored and also the periodic quality review by the designated CDM Monitoring Manager for collected data.	Y	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.11.2. Is the belonging determination of uncertainty levels done correctly for each ID in a correct and reliable manner?	1	DR	The uncertainty levels for each ID have been determined in reliable manner.	Y	Y
B.11.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	1	DR	QA-QC procedure of data capture and handling procedure has been properly described.	Y	Y
B.11.4. Is it ensured that data will be bound to national or internal reference standards?	1	DR	The monitoring data will be clearly reproducible and comparable and will not be dependent on site-specific adjustments.	Y	Y
B.11.5. Is it ensured that data provisions will be free of potential conflicts of interests resulting in a tendency of overestimating emission reductions?	1	DR	The selected data/parameters will be meeting the reliable QA-QC procedure through regular calibration by competent agency and maintenance of monitoring equipments, confirmation of relevant government departments for secondary legal requirement data monitored and also the periodic quality review by the designated CDM Monitoring Manager for collected data.	Y	Y
B.12. Operational and management structure					
B.12.1. Is the authority and responsibility of project management clearly described?	1	DR	According to the PDD version 01, the overall authority and responsibility of project management is not clear.	CAR 20	Y
B.12.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	1	DR	According to the PDD version 01, the the CDM Monitoring Manager of Montalban Methane Power Corporation has the overall authority and responsibility of monitoring, measurement and reporting. But the authority and responsibility for project registration is not clearly defined.	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			Pending CAR 20		
B.12.3. Are procedures identified for training of monitoring personnel?	1	DR	According to the PDD version 01, the training of the monitoring personnel has been identified and as the project is yet to be operational, thus the detail training materials and records will be provided during verification procedure.	Y	Y
B.13. Monitoring Plan (Annex 4)					
B.13.1. Is the monitoring plan developed in a project specific manner clearly addressing the unique features of the CDM activity?	1	DR	The description of the data/ parameters monitored in section B.7.1 of PDD version 01 is not customized in accordance with the project scenario. Pending CAR 19 and CAR 20	Pending	Y
B.13.2. Does the monitoring plan completely describes all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	1	DR	Pending CAR 19, CAR 20	Pending	Y
B.13.3. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	1	DR	According to the PDD version 01, the monitoring plan of the project activity provide information regarding the flow meters, electronic energy meters etc. which will be deployed efficiently during the project implementation.	Y	Y
B.13.4. Are procedures identified for calibration of monitoring equipment?	1	DR	According to the PDD version 01, the description for periodic calibration of monitoring equipment has been included.	Y	Y
B.13.5. Are procedures identified for maintenance of monitoring equipment and installations?	1	DR	Yes, the procedures of maintenance of monitoring equipment and installations have been identified. Same has to be checked during site visit.	Pending site visit.	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
B.13.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation)	1	DR	Procedures regarding day-to-day records handling (including what records to keep, storage area of records and how to process performance documentation) is not clearly described. The operational manual for the project activity has to be provided by the project proponent.	NIR 21	Y
B.13.7. Are procedures identified for dealing with possible monitoring data adjustments and missing data allowing redundant reconstruction of data in case of monitoring problems??	1	DR	According to the PDD version 01, the description for corrective action plan to handle any nonconformity of monitoring data has been included in project monitoring plan.	Y	Y
B.13.8. Are procedures identified for internal audits of GHG project compliance with operational requirements where applicable?	1	DR	No such procedure of internal audits for GHG project compliance has been identified in PDD version 01. Pending NIR 21	Pending	Y
B.13.9. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	1	DR	No such clear information regarding procedures for project performance reviews before data is submitted for verification, internally or externally. Pending NIR 21	Pending	Y
B.14. Baseline details					
B.14.1. Is there any indication of a date when determine the baseline?	1	DR	The date of completion of the application of the baseline study and the name of the responsible person in section B.8 of the PDD version 01.	Y	Y
B.14.2. Is this in consistency with the time line of the PDD history?	1	DR	The proposed CDM project activity is a future project and the version number and date of the version as provided in current version of the PDD is consistent with time line of the project's history.	Y	Y
B.14.3. Is all data required provided in a complete manner by annex 3 of the PDD?	1	DR	The baseline information in annex 3 in PDD	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			version 01 is not clear. Same has to be discussed during site visit.	site visit	
C. Duration of the Project / Crediting Period					
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	1	DR	The project's starting date and operational lifetime clearly provided in PDD version 01, but the basis of the consideration of project start date is not clear. The consideration basis of the project start date to be cross checked with reference to the Logical documentary evidence for the same.	NIR 22	Y
C.1.2. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	1	DR	According to the version 01 of PDD, the fixed crediting period of 10 years has been selected for the project activity.	Y	Y
C.1.3. Does the project's operational lifetime exceed the crediting period	1	DR	The project's operational life time is expected to be 12 years which exceeds the fixed crediting period of 10 years.	Y	Y
D. Environmental Impacts					
D.1.1. Does the project comply with environmental legislation in the host country?	1	DR	The Environmental Compliance Certificate (ECC) by the local government body, NOC issue by the Department of Environmental and Natural Resources, Govt. of Philippines, Govt. approval & relevant environmental clearances for existing sanitary landfill site and any other relevant environmental clearance or approvals for the project activity from relevant govt. authority (municipal, state and national level) to be provided by the project proponent.	CAR 23	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
D.1.2. Has an analysis of the environmental impacts of the project activity been sufficiently described?	1	DR	The description of environmental aspects and impacts by the project activity mainly due to risks from collection, pumping and treatment of LFG, noise and vibration caused by the LFG and air pollution resulting from combustion of LFG has been provided in PDD version 01. The environmental aspects and impacts by the project activity have to be checked during the site visit.	Pending site visit.	Y
D.1.3. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, is an EIA approved?	1	DR	According to the PDD version 01, EIA study is not required for the project activity for the project activity under relevant legislative requirement of Philippines. But the proper reference of the relevant legislative requirement nullifying the requirement of EIA study for the project activity has to be provided by the project proponent.	CAR 24	Y
D.1.4. Will the project create any adverse environmental effects?	1	DR	According to the PDD version 01, the project activity will not create any adverse environmental effects. Same has to be checked during site visit. Pending CAR 24	Pending site visit.	Y
D.1.5. Are transboundary environmental impacts considered in the analysis?	1	DR	According to the PDD version 01, no transboundary environmental impacts have been identified. Same has to be cross checked during site visit.	Pending site visit	Y
D.1.6. Have identified environmental impacts been addressed in the project design?	1	DR	The mitigation plan for identified environmental impacts due to the project activity has been addressed in PDD version 01.	Pending site visit.	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			The same has to be checked during site visit. Pending CAR 24		
E. Stakeholder Comments					
E.1.1. Have relevant stakeholders been consulted?	1&7	DR	The local stakeholder consulted for the project activity is not clear in PDD version 01. A list of consulted local stakeholder has to be provided by the project proponent.	NIR 25	Y
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	1	DR	According to the PDD version 01, individual invitations were sent to the relevant local stakeholders, the relevant documentation of the invitation of comments from the local stakeholder has to be provided by the project proponent.	NIR 26	Y
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1	DR	The requirement of local stakeholder consultation process under regulation/laws in the host country is not clear in PDD version 01. The same has to be checked during site visit.	Pending site visit	Y
E.1.4. Is the undertaken stakeholder process described in a complete and transparent manner?	1	DR	The relevant documentation of invitation of local stakeholder comments, report or minutes of local stakeholder consultation meeting with attendance list, procedure for compilation of comments received from the LSC process and summary of the comments received to be provided by the project proponent. Pending NIR 26	Pending	Y
E.1.5. Is a summary of the stakeholder comments received provided?	1	DR	No summary of the stakeholder comments received during LSC process provided in PDD version 01.	Pending	Y

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CHECKLIST QUESTION	Ref. ID	MoV*	COMMENTS	Draft Concl	Final Concl
			The detail of comments received during local stakeholder consultation process, to be provided by the project proponent. Pending NIR 26		
E.1.6. Has due account been taken of any stakeholder comments received?	1	DR	According to the version 01 of the PDD, no negative comments have been received during the local stakeholder consultation process. The same issue to be checked during site visit.	Pending site visit.	Y

REFERENCES

Reference ID	Title / description	Comments
1	Project Design Document (version 1 dated 14/08/2007)	This has been referred to assess the applicability of CDM Modalities, baseline and monitoring methodology with the project design.
2	ACM001 version 06	This has been referred to assess the applicability, baseline and monitoring methodology with the project design.
3	AMS-I.D. version 11	This has been referred to assess the applicability of CEF calculation procedure for baseline grid power.
4	Tool for the demonstration and assessment of additionality – Version 3	This has been referred to assess the most plausible baseline scenario selection approach and project additionality.
5	Methodological Tool to determine project emissions from flaring gases containing Methane, EB 28 report, annex 13	This has been referred to assess the methodological choice of project emission from flaring of LFG.
6	Guidelines for completing the project design document (CDM-PDD) version 06.2	This has been referred to validate the completeness

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		of the PDD
7	Ecological Solid Waste Management Act of 2000_RA9003	This has referred to assess the baseline of LFG emissions from Disposal or treatment of waste.
8	Philippine Clean Air Act (RA 8749)	This has referred to assess the Consistency of plausible baseline alternatives and project scenario with mandatory laws and regulations.

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A.3 Annex 3: Overview of Findings

Description of table:

Type	Findings are either New Information Requests (NIR) or Corrective Action Requests (CAR). CARs are items that must be addressed before a project can receive a recommendation for registration. NIRs may lead to the raising of CARs. Observations are included at the end and may or may not be addressed. They are primarily to act as signposts for the verifying DOE.
Issue	Details the content of the finding
Ref	refers to the item number in the Validation Protocol
Response	Please insert response to finding, starting with the date of entry.

Rows for comments and further response will be appended to the table until the Findings has been addressed to the satisfaction of the Lead Assessor.

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
1	CAR	Provide LOA from the Host Country and from the Annex I Investor Country for the project activity.	3

Date: [13-09-07][Response from project developer]

Host Country Approval (Annex 1) has been requested and is expected in mid-September.

Date: [19 Sep 07] [Comments from Local Assessor]

Letter of Approvals from Host Country (Philippines) and Annex I Investor Country (UK) Designated National Authority are pending.

Date: [13-09-07][Response from project developer]

LOAs from Host Country DNA and Annex I country DNA has been submitted to DOE with all requisite information.

Date: [3 Feb 07] [Comments from Local Assessor]

- LOA from Host country (Philippines) Ref. No. LOA-2008-053-WM042 dated 11 March 2008 has been submitted by the project proponent, the name of the project as mentioned in final PDD and Host country LOA is completely consistent, however the Sectoral Scope, Methodology used, Scale & size length of the crediting period was matching with the facts as mentioned in PDD and the validation findings, further to that the typographical errors have been rectified by the Philippine DNA on the original LOA document and the rectifications have been counter signed by Ms. Joyceline A. Goco, Head, CDM Secretariat, Philippine DNA. The entire communications made between project proponent and Philippine DNA or vice-versa of rectifications of the facts mentioned in Host Country LOA (rectification request from Montalban Methane Power Corporation to Philippine DNA dated 14 March 2008, Response from Philippine DNA to project proponent dated 17 March 2008, further rectification request from Carbon Capital Markets to Philippine DNA) has been checked and found justified, apart from that a declaration letter describing entire rectification issues along with milestones duly signed by both the project proponents (Montalban Methane Power Corporation and Carbon Capital Markets Ltd.) has been obtained. All the information provided in rectified Host Country LOA has been cross checked and found satisfactory and in line with the project design. Thus accepted.

- LOA from Annex I country DNA, Ref. CCML/02/2008, dated 1st April 2008 has been cross checked and found satisfactory.

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Thus CAR 01 can be closed out. Date:04-04-2007 [Pankaj Mohan] [Acceptance and close out] CAR 01 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
2	CAR	Provide Modalities of Communication of the project activity.	6

Date: [13-09-07][Response from project developer]

Modalities of Communication has been signed and supplied as Annex 3.

Date: [19 Sep 07] [Comments from Local Assessor]

- The name of the project activity as mentioned in the Modalities of Communication dated August 14, 2007 with the EB and UNFCCC Secretariat as submitted by the project proponent is not matching with the same as mentioned in PDD version 02.
- The name and contact information on the Carbon Logistics from Carbon Capital Markets Ltd. as the project participant provided in Annex 1 of the PDD version 02 is not matching with the same provided in the Modalities of Communication.

Date: [28-11-07][Response from project developer]

Updated Modalities of Communication (MoC) has been signed and supplied:

- Names of individuals in the PDD have been updated to reflect those as they appear in the MoC
- The name of the Project Activity has been updated to reflect that of the PDD

Date: [03 Dec 07] [Comments from Local Assessor]

The updated Modalities of Communication dated 24th Sep 2007 submitted by the project participant has been checked and the name of the project activity and the name & contact details of the project participants are found in line with the same as mentioned in PDD version 03. Thus, CAR 02 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 02 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
3	NIR	Provide applicable ownership documents or licenses which will allow the implementation of the project at existing sanitary landfill site.	A.4.2

Date: [13-09-07][Response from project developer]

Defined in Article 4 of Annex 4 'MMPC Tripartite Agreement'.

Date: [19 Sep 07] [Comments from Local Assessor]

1. The date of the Tripartite Agreement signed by The Province of Rizal, The Municipality of Rodriguez, Rizal and International Solid Waste Integrated Management Specialist Inc. is not mentioned in the MOA document.
2. The project ownership modalities are not clear as the contract regarding Methane Gas Recovery and Electricity Generation Project at Montalban Sanitary Landfill, between "The Municipality of Rodriguez, Rizal" and "Karbon Kredit Philippines Inc." and the subsequent contract agreement between "Karbon Kredit Philippines Inc." and "Montalban Methane Power Corporation" (as

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mentioned in the MOA) has not been provided and the issue of eligibility of Montalban Methane Power Corporation and Capital Carbon Markets Ltd. regarding development of CDM project at the designated site and ownership of carbon credits are not clear.

Date: [28-11-07] [Response from project developer]

With regards the MOA document:

- As per Annex 4 'Complete MMPC Tripartite Agreement' (see cover letter dated 7th June 2007), MMPC's lawyer (Napoleon J. Poblador) attests that the MOA was signed on the 4th June 2007.
- The MOA clearly states on page 1 that "Karbon Kredit Philippines Incorporated, (hereinafter "Karbon Kredit") which subsequently assigned the said contract to Montalban Methane Power Corporation ("MMPC")".
- Annex 17 'Deed of Assignment' and signed on the 16th March 2007 clearly assigns the rights of the Project Activity from Karbon Kredit Philippines Inc to MMPC
- MMPC will own 100% of the CERs generated by the Project Activity as per the text reflected in Annex 22: 'Mayoral Declaration'.
- Carbon Capital Markets Ltd representing the Carbon Assets Fund ("CAF") will finance 100% of the capital expenditure required to fund the Project Activity. Annex 15 'CAF Balance Sheet – Signed' has been provided to show the CAFs balance sheet, and therefore capacity to finance the Project Activity.
- A self certification letter produced on headed paper has been included as Annex 15: 'MMPC Declaration'. The declaration covers off the issue of ODA, technology substitution, project finance sources and the official start date of the crediting period.

Date: [03 Dec 07] [Comments from Local Assessor]

- The date of the Tripartite Agreement signed as 4th June 2007 by The Province of Rizal, The Municipality of Rodriguez, Rizal and International Solid Waste Integrated Management Specialist Inc. has been cross checked with reference to the certification MMPC's lawyer Mr. Napoleon J. Poblador of Zamora Poblador Vasquez & Bretaña Law offices dated 7 June 2007 and found satisfactory, a copy of the same has been obtained from the project proponent.

- The project ownership modalities of Municipality of Rodriguez regarding Methane Gas Recovery and Electricity Generation Project at Montalban Sanitary Landfill, scope of Karbon Kredit Philippines Incorporated of construction, installation and operation of the landfill gas recovery and electricity generation project in modalities of Clean Development Mechanism and further to that contract the scope of Montalban Methane Power Corporation of project implementation, operation and recovery of the methane gas at the project site has been cross checked with the reference to the following documents –

  1. Contract Agreement signed between Municipality of Rodriguez and Karbon Kredit Philippines, Inc. for the Methane Recovery and Electricity Generation Project, Montalban Solid Waste Disposal Facility dated 10th August 2006.
  2. Deed of assignment signed between Karbon Kredit Philippines,Inc. and Montalban Methane Power Corporation with the consent of Municipality of Rodriguez, Rizal authorised by Notary Public for Makati City Atty. Lope M. Velasco on 16th March 2007.
  3. Memorandum of Agreement signed by The Province of Rizal, The Municipality of Rodriguez, Rizal and International Solid Waste Integrated Management Specialist Inc. dated 4th June 2007.

  All the documents found justified and satisfactory and a copy of the same has been obtained.

- Eligibility of Montalban Methane Power Corporation and Carbon Capital Markets Ltd. regarding development of CDM project at the designated site and ownership of carbon credits has been cross checked with reference to the –

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1. Deed of assignment signed between Karbon Kredit Philippines Incorporated and Montalban Methane Power Corporation with the consent of Municipality of Rodriguez, Rizal authorised by Notary Public for Makati City Atty. Lope M. Velasco on 16th March 2007.
2. Declaration on behalf of the Municipality of Rodriguez, Rizal, Philippines dated 17th Oct 2007.
3. Montalban Methane Power Corporation declaration dated 27 Sep 2007.

All the documents found justified and satisfactory and copies of the same has been obtained. Thus, NIR 03 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] NIR 03 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
4	CAR	Provide more specific information and documentary evidences of technical specification of the project installations to establish the transfer of environmentally safe and sound technologies and know-how by the project activity.	A.4.5

Date: [13-09-07][Response from project developer]

As per:

Annex 6a: 'Organics Supply and Installation Contract';

Annex 6b: 'Organics Design Supply and Installation Contract'; and

Annex 6c: 'Monark Design Supply and Installation Contract.

These documents provide complete technical specifications for the project technology and clearly outline the transfer of environmentally safe and sound technologies. The proposal has been prepared to ensure that all aspects of the LFG extraction, flaring and power generation system are in line with CDM requirements.

Date: [19 Sep 07] [Comments from Local Assessor]

- The Montalban Methane Power Corp's Contract Agreements of 'Supply and installation – Annex 6a', 'Design, manufacture and supply – Annex 6b' and 'Design, supply and installation – Annex 6c' with the contractors such as 'Organics Asia Company Ltd.', 'Organics Group Plc.' and 'Monark Equipment Corporation' respectively as provided by the project proponent are not appropriate and authenticated. All the contract agreements are draft copies. Provide signed and authenticated contract agreements.

- The contract agreements do not provide any description of technical specification of the project installations. Thus, transfer of environmentally safe and sound technologies and know-how by the project activity is still not clear.

Date: [28-11-07][Response from project developer]

With regards the referred to Annex 6a, 6b, and 6c:

- All the updated attachments are those that have been agreed and signed
- Appendixes' to each of the Annex's has also been included. In the case of Annex 6b and Annex 6b, the appendix's have been included separately
- Annex 6b, Appendix b1 highlights all technology being delivered for the methane gas extraction and flaring system

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- Annex 6b, Appendix b1 contains information regarding the installation schedule
- Annex 6c, appendix 1 highlights all power generation equipment being supplied
- Annex 16 – 'MMPC Status update' has been added as a new Annex to highlight progress to date regarding the implementation of the project. This should be considered a general reference document than only
- Annex 20 'Monark Declaration – Signed' provides information regarding the commissioning date of power generation activities
- Annex 24 'Organics Declaration – Signed' provides information regarding the commissioning date of flaring

Date: [03 Dec 07] [Comments from Local Assessor]

The technical specification of the project installations has been cross checked with reference to the following documents –

6. Design, manufacture & supply of materials, equipment & services for the landfill gas collection, delivery & flaring system of the project activity contract signed between Montalban Methane Power Corporation (MMPC) and Organics Group Plc.

7. Supply & installation of materials, equipment & services to complete the landfill gas collection, delivery & flaring system of the project activity contract signed between MMPC and Organics Asia Company Ltd.

8. Design, manufacture, supply & installation of materials, equipment & services to complete the landfill gas fired power generating plant contract signed between MMPC and Monark Equipment Corporation.

9. Proposals from Monark Equipment Corporation (Ref. E6-025F RLD dated 24 Jan 07, Ref. E7-015 RLD dated 12 July 07 Ref. E7-011B RLD dated 26th July 07)

All the documents are found duly signed by the project proponent and the supplier/contractors and the description of Landfill gas collection system, Booster & flare package, Servicing & training, leachate extraction system, equipment supply details, Detailed performance criteria for the plant, Control concept, Plant specifications and energy generation equipments are found well justified of implementation of environmentally safe and sound technologies by the project activity. Thus, CAR 04 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 04 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
5	NIR	Provide justification for consideration of CH_4 and N_20 emissions as the secondary emissions source due to fossil fuel use for to project activity within the project boundary in section B.3 of PDD version 1 and its implementation in emission reductions calculation.	A.4.6

Date: [13-09-07][Response from project developer]

Secondary N_2O emissions generated by the onsite fossil fuel combustion generator have been removed from the project boundary. N_20 emissions are not recognised by the methodology ACM0001 version 6 as an emissions source and have consequently been removed to be in line with the requirements of the methodology.

Date: [19 Sep 07] [Comments from Local Assessor]

The typographical error due consideration of CH_4 and N_2O emissions as the secondary emissions source due to fossil fuel use for to project activity within the project boundary as mentioned in section B.3 of PDD version 01 has been rectified in PDD version 02 and has not been considered as emission sources, which

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is in turn supports the simplicity and conservativeness of the methodology as applied. Thus NIR 05 can be closed out. Date:07-12-2007 [Pankaj Mohan] [Acceptance and close out] NIR 05 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
6	NIR	Provide supporting documentation regarding project technology will not be substituted by other or more efficient technologies within the project period.	A.4.9

Date: [13-09-07][Response from project developer]

Exact details of the world-class technology to be supplied are described in the following contracts.

As per Annex 6a: 'Organics Supply and Installation Contract';

Annex 6b: 'Organics Design Supply and Installation Contract'; and

Annex 6c: 'Monark Design Supply and Installation Contract.

Exact details of the technology are described within these documents.

Date: [19 Sep 07] [Comments from Local Assessor]

- The Montalban Methane Power Corp's Contract Agreements of 'Supply and installation – Annex 6a', 'Design, manufacture and supply – Annex 6b' and 'Design, supply and installation – Annex 6c' with the contractors such as 'Organics Asia Company Ltd.', 'Organics Group Plc.' and 'Monark Equipment Corporation' respectively as provided by the project proponent are not appropriate and authenticated. All the contract agreements are draft copies. Provide signed and authenticated contract agreements.

- The contract agreements do not provide any description of technical specification of the project installations.

- Provide a self declaration letter in proper official format regarding project technology will not be substituted by other or more efficient technologies within the project period.

Date: [28-11-07][Response from project developer]

With regards the referred to Annex 6a, 6b, and 6c:

- All the updated attachments are those that have been agreed and signed
- Appendixes' to each of the Annex's has also been included. In the case of Annex 6b and Annex 6b, the appendix's have been included separately
- Annex 6b, Appendix b1 highlights all technology being delivered for the methane gas extraction and flaring system
- Annex 6b, Appendix b1 contains information regarding the installation schedule
- Annex 6c, appendix 1 highlights all power generation equipment being supplied
- Annex 16 – 'MMPC Status update' has been added as a new Annex to highlight progress to date regarding the implementation of the project. This should be considered a general reference document than only
- Annex 20 'Monark Declaration – Signed' provides information regarding the commissioning date of power generation activities
- Annex 24 'Organics Declaration – Signed' provides information regarding the commissioning date of flaring

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With regards the self declaration letter:

- A self certification letter produced on headed paper has been included as Annex 15: 'MMPC Declaration'. The declaration covers off the issue of ODA, technology substitution, project finance sources and the official start date of the crediting period

Date: [19 Sep 07] [Comments from Local Assessor]

The technical specification of the project installations has been cross checked with reference to the following documents –

1. Design, manufacture & supply of materials, equipment & services for the landfill gas collection, delivery & flaring system of the project activity contract signed between Montalban Methane Power Corporation (MMPC) and Organics Group Plc.

2. Supply & installation of materials, equipment & services to complete the landfill gas collection, delivery & flaring system of the project activity contract signed between MMPC and Organics Asia Company Ltd.

3. Design, manufacture, supply & installation of materials, equipment & services to complete the landfill gas fired power generating plant contract signed between MMPC and Monark Equipment Corporation.

All the documents are found duly signed by the project proponent and the supplier/contractors and found current good practice for project design engineering and satisfying in terms of implementation of state-of-the-art technology, beside that the project proponent has submitted a documented undertaking dated 27 Sep 2007 regarding project technology will not be substituted by other or more efficient technologies within the project period, which is found satisfactory. Thus, NIR 06 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] NIR 06 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
7	NIR	Provide planned project implementation schedule.	A.4.12

Date: [13-09-07][Response from project developer]

The planned schedule for implementation of the Project Activity is described as per Annex 6a: 'Organics Supply and Installation Contract' in Appendix (b). 1 First Schedule.

Date: [19 Sep 07] [Comments from Local Assessor]

There is no information regarding project implementation schedule presented in any part of Montalban Methane Power Corp's Contract Agreement of 'Supply and installation – Annex 6a' with 'Organics Asia Company Ltd.', as provided by the project proponent. Beside that the contract agreement is not appropriate and authenticated as the contract agreement is a draft copy. Provide signed and authenticated contract agreement showing proper project implement schedule.

[Acceptance and close out]

Date: [28-11-07][Response from project developer]

With regards the referred to Annex 6a, 6b, and 6c:

- All the updated attachments are those that have been agreed and signed
- Appendixes' to each of the Annex's has also been included. In the case of Annex 6b and Annex 6b, the appendix's have been included separately
- Annex 6b, Appendix b1 highlights all technology being delivered for the methane gas extraction and flaring system

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- Annex 6b, Appendix b1 contains information regarding the installation schedule
- Annex 6c, appendix 1 highlights all power generation equipment being supplied
- Annex 16 – 'MMPC Status update' has been added as a new Annex to highlight progress to date regarding the implementation of the project. This should be considered a general reference document than only
- Annex 20 'Monark Declaration – Signed' provides information regarding the commissioning date of power generation activities
- Annex 24 'Organics Declaration – Signed' provides information regarding the commissioning date of flaring

Date: [03 Dec 07] [Comments from Local Assessor]

The project implementation schedule has been cross checked with the appendix (b).2. provided under Design, manufacture & supply of materials, equipment & services for the landfill gas collection, delivery & flaring system of the project activity contract signed between Montalban Methane Power Corporation (MMPC) and Organics Group Plc. and Proposals from Monark Equipment Corporation (Ref. E6-025F RLD dated 24 Jan 07, Ref. E7-015 RLD dated 12 July 07 Ref. E7-011B RLD dated 26th July 07) duly signed by MMPC and Monark Equipment Corporation., further more further more the expected commissioning date of the LFG flaring facility as 12 Dec 2007 and full functional flaring operational by 29th December 2007 is evident from the letter from Organics Asia Co., Ltd. dated 5th Oct 2007. The commissioning date of the power house is expected by April 2008, which is evident from the letter dated 08th Oct 2007 from Monark Equipments. The timeline of the project implementation has been clearly described in PDD version 03 dated 28th Nov 07. Hence, NIR 07 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] NIR 07 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
8	CAR	• Provide summary of projected emission reductions in line with the guidelines for completing the project design document (CDM-PDD) version 06.2. in section A.4.4 & B.6.4.	A.4.13

Date: [13-09-07][Response from project developer]

Annual emission reductions have been compiled in line with CDM guidelines. Specifically, they now cover a 10 year period.

Date: [19 Sep 07] [Comments from Local Assessor]

- The representation of the yearly projected emissions reductions value provided in section A.4.4 & B.6.4 of the PDD version 02 is not clear as the yearly description of the emission reductions of selected 10 year crediting period should be in line with the crediting period start date and extent of the crediting period.

- The description of the project emission reductions in section A.4.4 & B.6.4. of PDD version 02 is not in line with the guidelines for completing the project design document (CDM-PDD) version 06.2. for the same.

Date: [28-11-07][Response from project developer]

Regarding the projected number of years being described in A.4.4 and B.6.4:

- Information is presented in line with is in line with the guidelines for completing the PDD
- The start of crediting is 01-12-2007. Crediting finishes on 20-11-2017
- The table shows crediting from 2007-2017 including which months the Project Activity is expected to commence and finish.

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Date: [03 Dec 07] [Comments from Local Assessor] The representation of yearly projected emissions reductions value provided in section A.4.4 & B.6.4 of the PDD version 03 is clear now and in line with the crediting period start date and extent of the crediting period and guidelines for completing the project design document (CDM-PDD) version 06.2. Thus, CAR 08 can be closed out. Date:07-12-2007 [Pankaj Mohan] [Acceptance and close out] CAR 08 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
9	CAR	Provide detail financing plan of the project activity.	A.5.1

Date: [13-09-07][Response from project developer]

A detailed financing plan has been laid out in Annex 7a: 'Montalban Calculations'.

Please note that many financial elements of the Project Activity are still being concluded. Consequently, the financial details should be assumed to be accurate but not 'fixed' at the time of writing.

Date: [19 Sep 07] [Comments from Local Assessor]

- The "Montalban Financial Summary – 'Base Case' in spreadsheet Base IRR – Annex 7: Montalban Calculations'' provided by the project proponent has been checked but the break-ups of total project capital expenditure and means of finance is not clear.
- Provide an authorized comprehensive financial summary showing break-ups of total project capital expenditure and means of finance for better clarity.
- Provide a self certification regarding means of project investment and non involvement of ODA in project financing.

Date: [28-11-07][Response from project developer]

Regarding 'Annex 7: Montalban Calculation':

- The sheets have been updated to include capital expenditure of the specific equipment required. A breakdown of capital expenditure is now provided in the sheet entitled 'MWH_Finance'
- Carbon Capital Markets Ltd representing the Carbon Assets Fund ("CAF") will finance 100% of the capital expenditure required to fund the Project Activity. Annex 16 'CAF Balance Sheet – Signed' has been provided in sheet 'MWH_Finance' to show the CAFs balance sheet, and therefore capacity to finance the Project Activity. Additionally, this has been further stated in Annex 15 'MMPC Declaration'
- A self certification letter produced on headed paper has been included as Annex 15: 'MMPC Declaration'. The declaration covers off the issue of ODA, technology substitution, project finance sources and the official start date of the crediting period

Date: [03 Dec 07] [Comments from Local Assessor]

Detail financing plan of the project activity along with the break-ups of total project capital expenditure and means of finance as provided in sheet named "MWh_Finance" of revised excel spreadsheet "Montalban Calculation" as provided by the project proponent has been checked and found justified and simultaneously the source of project finance and non involvement of ODA has been cross checked with reference to the Montalban Methane Power Corporation Declaration dated 27 Sep 2007 and Balance Sheet of Carbon

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Assets Fund as of 31 Aug 2007 represented by Carbon Capital Markets Ltd. All the documents found justified and satisfactory and copies of the same has been obtained. Thus, CAR 09 can be closed out. Date:07-12-2007 [Pankaj Mohan] [Acceptance and close out] CAR 09 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
10	CAR	Provide clarification regarding identification of relevant grid system of consideration of baseline electricity generation.	B.2.2

Date: [13-09-07][Response from project developer]

A detailed calculation has been provided in Annex 7: 'Montalban Calculations'. Calculations have been made in accordance with the AMS I.D version 12.

The relevant grid system, Luzon, was identified as that which covers the area of Rizal and the district of Rodriguez. Further information about the Luzon grid can be found at http://www.doe.gov.ph/index.asp.

Date: [19 Sep 07] [Comments from Local Assessor]

- Separate description and selection approach of baseline electricity generation scenario has not been provided in Section B.4 of PDD version 02.
- Description and basis of identification of relevant grid system as "Luzon grid system" regarding determination of emission factor of the baseline electricity has not provided clearly in Section B.5 of PDD version 02. Provide proper step wise description of Philippine National Grid system, its constituents and selection of relevant grid system for the project activity in the PDD with proper citation of information source.

- Provide a separate excel worksheet for electricity emission factor calculation.

Date: [28-11-07][Response from project developer]

Regarding Section B.4:

- Information has been provided to section B.4 of the revised PDD to describe the baseline electricity generation scenario
- Web site address for grid power generation data: http://www.doe.gov.ph/EP/Powerstat.htm
- Steps to derive the electricity emission factor ($CEF_{elect, BL,y}$) for the baseline:
  1. Identify the province where the project is located (i.e., Rizal)
  2. Identify the grid region that Rizal belongs to (i.e., Luzon)
  3. Collect official data on power generation by fuel type
  4. Obtain the best available emission factors specific to fuel type and Philippines
  5. Calculate the overall weighted average emission factor based on the power generation data and specific emission factors

- $CEFelect,BL,y = \sum(kWh_i * \text{emission factor}_i)/kWh_{total}$ where i = fuel or energy type
- In accordance with ACM0001 Version 6, AMS-1.D is used since the baseline is electricity generated by plants connected to the grid and the threshold for small-scale project applies. One of the options in AMS-1.D is to calculate the weight average emissions (in kg CO2e/kWh) of the current generation mix using data from an official source where publicly available. Therefore, we used the official power generation data from the Philippines' Department of Energy (www.doe.gov.ph/EP/Powerstat.htm). The WRI's GHG Calculation Tool for 'Indirect CO_2 Emissions from the Consumption of Purchased Electricity' (www.ghgprotocol.org/includes/getTarget.asp?type=d&id=MTczNDM) provides the emission factors (in kg CO_2/kWh) prepared by International Energy Agency (IEA) that are specific to Philippines and fuel type (i.e., coal, gas, oil). For ex-ante calculations, we are using the 2006 power generation data and 2004 emission factors, which are the latest years published by the

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Philippines DOE and WRI (as per the references above).

Regarding identification of the Luzon grid system:

- The Luzon grid is the only grid connection that covers the Metro Manila area. A full report 'Luzon Grid Using Market Management System' Philippine Electricity Market Corporation Market Operations Group, August 2005' and review of the Luzon grid has been attached as Annex 23.
- A detailed description of the Luzon grid has been included in Section B.5 of the updated PDD
- Annex 15 'MMPC Declaration – signed'; and Annex 21 'MMPC Power Generation Declaration – signed' declare that the Project Activity will be attached to the Luzon grid

Regarding the calculation of the electricity emission factor:

- The original Montalban Calculations excel sheet (previously Annex 7) has been separated into two Annexes: Annex 7a - Montalban Calculations'; and Annex 7b – Luzon Grid Emissions Calculations'
- Complete and direct references are now made to the underlying data used to calculate the emissions factor (see above text regarding Section B.4)

Date: [03 Dec 07] [Comments from Local Assessor]

The re-phrased description of selection of Luzon Grid system of Philippines National Power system as the baseline grid electricity system applicable for the project activity and the approach of calculation of Luzon Grid system emission factor as provided in PDD version 03 and the excel calculation sheet named "Luzon Grid Emissions Calculations" has been cross checked with reference to the facts & figures provided in Philippines' Department of Energy website (http://www.doe.gov.ph/) and the report Luzon Grid Using Market Management System' Philippine Electricity Market Corporation Market Operations Group, August 2005' the details were found satisfactory and thus accepted. Hence, CAR 10 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 10 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
11	CAR	Provide proper description of project's system boundary.	B.2.3

Date: [13-09-07][Response from project developer]

A detailed project boundary description has been updated and provided in the revised PDD.

Date: [19 Sep 07] [Comments from Local Assessor]

The schematic representation of project boundary in section B.3 of PDD version 02 is not clear as the diagram shows the power generation from the recovered LFG as 'optional'. Please clarify and provide a brief description of the components included in project boundary in PDD.

Date: [28-11-07][Response from project developer]

Regarding the project boundary:

- The project has been updated to reflect that power generation is no longer 'optional'
- Power generation is core to the Project Activity and is expected to come online in April 2008
- A brief clarification of the components of the project boundary has also been added

Date: [03 Dec 07] [Comments from Local Assessor]

The description of project boundary provided in PDD version 03 has been checked and found in line with the project implementation and requirement of ACM0001 ver. 06. Thus, CAR 11 can be closed out.

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Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 11 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
12	CAR	• Provide proper description of identification of all potential realistic and credible baseline alternatives for LFG emissions from disposal or treatment of waste and Power generation and justification of conservative screening of most plausible baseline scenario in accordance with ACM0001 version 06. • Provide explanation about selection of the baseline from the possible scenarios (and the exclusion of the other scenarios) should be provided in consistent with available (public) data. All key assumptions should be explained and information sources should be clearly referenced.	B.3.1

Date: [13-09-07][Response from project developer]

A detailed breakdown of all baseline alternatives has been described in the updated PDD.

Date: [19 Sep 07] [Comments from Local Assessor]

- The description of identification of all potential realistic and credible baseline alternatives for Disposal or treatment of waste and Power Generation and justification of conservative screening of most plausible baseline scenario as provided in section B.4 of PDD version 02, is not in accordance with the "Procedure for the selection of the most plausible baseline scenario" in Baseline Methodology of ACM0001 version 06.

Date: [28-11-07][Response from project developer]

Regarding Step 1: identification of alternative scenarios

- The scenarios have been updated to be in accordance with ACM0001 version 6. Specifically, all options described in the methodology are now considered by the revised PDD.

Date: [19 Sep 07] [Comments from Local Assessor]

The description of identification of all potential realistic and credible baseline alternatives for Disposal or treatment of waste and Power generation scenarios and the screening of most plausible baseline scenario among the selected alternatives as provided in PDD version 03 has been checked and found in accordance with ACM0001 version 06 and Tool for demonstration and assessment of additionality Version 3.

The justification of conservative screening of most plausible baseline scenario of Disposal or treatment of waste as "*atmospheric release of landfill gas instead of partial capture of landfill gas and destruction due to lack of implementation of legislation*" has been cross checked with reference to the following documents as provided by the project proponent –

4. "The Garbage Book: Solid Waste Management in Metro Manila." Printed for the Department of Environment and Natural Resource in TA 3848-PHI: Metro Manila Solid Waste Management Project., Asian Development Bank, 2004
5. "Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines" by Grace P. Sapuay, Solid Waste Management Association of the Philippines, UG-9 Cityland 8, #98 Sen. Gil Puyat Avenue, Makati City 1200 Philippines, E-mail: gracepsapuay@yahoo.com (available at http://www.adb.org/Documents/TACRs/PHI/tacr-phi-3848.pdf last accessed on 3rd Dec 07)
6. Solid Waste Inventory - National Solid Waste Management Commission, as of 1st Quarter Updates 2007 (available at http://www.denr.gov.ph/nswmc/6.php, last accessed on 3rd Dec 07)

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With reference to the above documents, facts & figures it is found justified that there is lack of proper solid waste management practices due to non enforcement or non implementation of "Ecological Solid Waste Management Act of 2000 (RA 9003) and there are no enforced regulations requiring LFG to be collected/destroyed, thus selection of baseline scenario of Disposal or treatment of waste as "*atmospheric release of landfill gas instead of partial capture of landfill gas and destruction due to lack of implementation of legislation*" has been accepted and copies of the all the supporting documents has been obtained from the project proponent.

The justification of conservative screening of most plausible baseline scenario of Power generation as "*power generation through existing and/or new grid-connected power plants*" and the fossil fuel intensity has been cross checked with reference to the Power Development Plan 2006 Update Supplement from Philippines Department of Energy and the Power Statistics Philippines Department of Energy available at http://www.doe.gov.ph and found justified in terms of current generation mix and planned capacity addition of Luzon grid in the future. Thus accepted. Hence, CAR 12 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 12 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
13	CAR	The explanation of project additionality of step 1: Identification of alternatives to the project activity; step 2: Investment analysis and step 4: Common practice analyses are not clear any transparently documented and justified. • Provide proper description of identification of possible project alternatives in accordance with "Tools for the demonstration and assessment of additionality" (version 3), and justification of screening of potential realistic and credible baseline alternatives in sub-step 1a of additionality discussion. • Provide explanation and justification through proper documentary evidence of consistency with mandatory laws and regulations for the baseline alternatives and systematically not enforcement of applicable legal or regulatory requirements and widespread non compliance with those applicable legal requirements in the country with reference to the current practice in the country in sub-step 1b of additionality discussion. • Provide proper description of critical techno-economic assumptions made during project IRR calculation and explanation of the assumption of power tariff of calculation of revenue from power sale. • Provide project IRR value considering CDM benefit. • Please provide detail IRR calculation sheet containing all assumptions made during the calculation along with their traceability. • Provide benchmark value referred during benchmark analysis, along with its traceability. • Provide proper clarification of consideration of 10% increase in project revenue and reduction in project cost during sensitivity analysis. • Provide sufficient justified information and proper supporting documentary evidences of common practice analysis.	B.4.2

Date:[13-09-07] [Response from project developer]

- The four scenarios defined in the PDD have been further clarified in line with the requirements of the Additionality Tool.

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- Annex 5 'The Garbage Book: Solid Waste Management in Metro Manila' published by the Asian Development Bank addresses issues surrounding the non-compliance of environmental rules by landfill sites in the metro Manila region. Citing page 20:

  "RA 9003 is an enlightened piece of legislation, yet few local governments are familiar with it… Significantly, the required Solid Waste Management Fund has not been set aside as mandated by law, limiting the level of interest… The garbage crisis is real, serious and poses even grave threats to the public health if not resolved."

- The PPA is presently being negotiated and whilst not yet complete is therefore not available for distribution. Making reference to publicly available power pricing information we have referred to the published report 'Philippines: Power Sector Profile and Roadmap' (Annex 11). Page 32 describes typical public prices for power which highlights prices at around P6.0375 per kWh, which is line with our assumption of USD 0.129 assuming a currency conversion factor 1 USD = 46.7797 Philippines Pesos (www.xe.com, dated 10-09-2007) of as highlighted in Annex 7: 'Montalban Calculations'.

- A benchmark value for investments has been supplied (Annex 9). This makes reference to the value of Government Bonds being issued by the Philippine Government. Presently, the value for short-term bonds is 14.5%. In other words, the return on capital is 14.5% should it be invested in such government bonds and held until they expire. This is significantly higher than the Project Activity base case IRR of 9%.

- Annex 7: 'Montalban Calculations' provides detailed IRR calculations and how they are affected by a 10% increase in project revenue and a 10% reduction in operational costs (as reflected in the results published in the PDD). The return on capital of the Project Activity, even with a 10% increase in project revenues, is approximately 15% which is only marginally higher than the value of government bonds (14.5%). Consequently, it remains unlikely that the Project Activity would go ahead without revenue stream generated by the sale of CERs.

- In the base case scenario for the Project Activity it is more sensible to invest in government bonds rather than the project without CERs.

- Even assuming that electricity revenues can be increased by 10%, it remains more commercially viable to purchase government bonds rather than invest in the Project Activity and incur host country investment, currency and project development risks, given that the returns are broadly in line with each other.

Date: [19 Sep 07] [Comments from Local Assessor]

- The description of the project alternative scenarios has not been represented in accordance to the ACM0001 version 6 and Tools for the demonstration and assessment of additionality, version 3 in PDD version 02. Provide proper description of identification of possible project alternatives in accordance with ACM0001 version 6 and Tools for the demonstration and assessment of additionality, version 3, and provide proper justification of screening of potential realistic and credible baseline alternatives in sub-step 1a of additionality discussion.

- The issue of systematically not enforcement of applicable legal or regulatory requirements and widespread non compliance with those applicable legal requirements in the country is still not clear.

- The assumptions of power tariff for computation of project revenue from power sale has been checked with reference to the Asian Development Bank Publication – "Philippines: Power Sector Profile and Roadmap by Geoffrey Brown, Jose Victor Emmanuel A. de Dios, and Helena S. Valderrama, as Philippine Peso 6.0375 per kWh. This is justified with the electricity rate (P 4.3344 per KWh) for the Luzon Grid as provided in National Power Corporation Effective Rates (http://www.napocor.gov.ph/npc5.asp)

- The IRR values of the project activity is not clear -

  – The project IRR value has been represented as 9% in PDD version 2 but the IRR calculation spread sheet named "Base IRR – Annex 7a- Montalban Calculations 2007-09-12" as provided by

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the project proponent showing the same parameter as “8.7%”. Please clarify.

- The project revenue consideration due to sell of electricity generation is not transparent as the consideration basis of installed capacity of electricity generation is not clear as represented in spreadsheets named “Base IRR” & “MWh_Finance” in Annex 7a – ‘Montalban Calculations’.

- The project IRR value considering the CDM revenue as represented considering the CER volume and CER price is not clear as represented in spreadsheets named “IRR with CER” & “CER Price” in Annex 7a - Montalban Calculations 2007-09-12.

- Please provide authorized project IRR calculated values (with and without CDM revenue) containing all assumptions made during the calculation along with their traceability.

- The traceability of the information regarding benchmark value “14.5%” for investments has been supplied as “Annex 9 - Philippine Govt Bond Rates - 2007-08-30” by the project proponent is not clear, beside that it is also not clear that which type of Government Bond rate (i.e. infrastructural, cash etc.) is being referred for investment benchmark value. The discussions regarding ‘Investment Analysis’ has not been reflected in Section B.5 of PDD version 02.

- The 10% decrease of project revenue is rather justified due to risk associated with the less power generation or reduction in operational costs but the issue of 10% increase in project revenue as mentioned is not clear.

- The Common Practice Analysis is not clear and it has not been described in accordance with the Tools for the demonstration and assessment of additionality, version 3. Provide sufficient justified information and proper supporting documentary evidences of common practice analysis in section B.5 of the PDD.

- Please provide the reference of the two other landfill projects in Philippines currently seeking CDM registration as mentioned in PDD version 02.

- Provide traceability of “Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines’ Sapuay, G., Development of Solid Waste Act, 2006” as mentioned in PDD version 02.

Date:[28-11-07] [Response from project developer]

With regards the description of project alternative scenarios:

- The scenarios have been constructed to comply and follow with the requirements of ACM0001, version 6 and Additionality Tool, version 3

With regards the enforcement of applicable legal or regulatory requirements for landfill gas recovery and power generation:

- A full list of quotes from ‘The Garbage Book, Solid Waste Management in Metro Manila’ and are included in section Step 1b of the updated PDD to establish the systematically not enforcement of applicable legal or regulatory requirements for landfill gas recovery and power generation and widespread non compliance with those applicable legal requirements in the country.

With regards the IRR values:

- The Project IRRs in the model (Annex 7a: Montalban Calculations) and the PDD now mirror each other
- The project revenue as reflected in Annex 7a: Montalban Calculations are dependant upon the rate at which each individual power generation is connected to the landfill gas extraction system. The decision to connect each individual unit will be dependant upon the Actual methane gas that is available and is extracted from the site. At this stage in the Project Activity has not been implemented. Power generation

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units are expected to be installed and operational in April 2008. Consequently, the actual availability of LFG will not be confirmed until these units begin consuming the LFG. Given this realistic scenario, that at this stage in the projects development it is unclear when power generation units will be connected (and therefore revenue streams come on line from the sale of power) we assume a linear increase in power generation to be conservative.
- An ACA has provided a letter of endorsement for the IRR's with and without CER revenues. This has been included as 'Annex 18 - ACA Approved IRR – Signed'

With regards forecast CER values:

- CER prices are now fixed for the duration of the Project Activity. A CER price is assumed of 12 Euros per tonne for the 10 year crediting period, which is considered to be conservative

Regarding the traceability of benchmark values:

- The benchmark value has been updated and included in the PDD section B.5
- The benchmark value has been referenced to a publicly available source
- http://business.inquirer.net/money/topstories/view_article.php?article_id=92047

Regarding the sensitivity analysis

- An additional alternative scenario has been included in the financial analysis to examine the financial impact of 10% increase of project revenue due to increase in power price, 10% reduction in project operational cost 10% and reduction in power generation.
- Each of the scenario options have expanded explanations in them to explain purpose

Regarding common practice analysis:

- The common practice analysis has been expanded and includes relevant information regarding the ADB publication "The Garbage Book"
- The examples of similar CDM project developments in the Philippines are also clearly referenced in the revised PDD.
- The document "Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines' Sapuay, G., Development of Solid Waste Act, 2006" has been provided as Annex 19 – 'Ecological Solid Waste Management Act – Review'

Date: [03 Dec 07] [Comments from Local Assessor]

- The description of identification of alternatives to the project activity and screening of potential realistic and credible baseline alternatives as provided in PDD version 03 has been checked and found justified with the requirement of applied baseline methodology ACM0001 version 06 and Tools for the demonstration and assessment of additionality" (version 3).

- The fact regarding the implementation of the project activity is not in any legal requirement has been cross checked with reference to the following documents –

  a. "The Garbage Book: Solid Waste Management in Metro Manila." Printed for the Department of Environment and Natural Resource in TA 3848-PHI: Metro Manila Solid Waste Management Project., Asian Development Bank, 2004

  b. Technical Assistance Completion Report for TA 3848-PHI: Metro Manila Solid Waste Management (available at http://www.adb.org/Documents/TACRs/PHI/tacr-phi-3848.pdf last accessed on 3rd Dec 07)

  c. "Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines" by Grace P. Sapuay, Solid Waste Management Association of the

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Philippines, UG-9 Cityland 8, #98 Sen. Gil Puyat Avenue, Makati City 1200 Philippines, E-mail: gracepsapuay@yahoo.com (available at http://www.sea-uema.ait.ac.th/Download/ARL/ISWM_Conference/Planning%20and%20Management%20Measures.pdf last accessed on 3rd Dec 07)

Although RA 9003 Rule Section 41 (available at http://www.emb.gov.ph/nswmc/res/R.A.%209003.PDF, last accessed on 3rd Dec 07) states "Gas control recovery system – a series of vertical wells or horizontal trenches containing permeable materials and perforated piping placed in the landfill to collect gas for treatment or productive use as an energy source", but from the above mentioned documents checked it has been found that at present, there are no enforced regulations regarding the collection of LFG from dumpsites in the Philippines and implementation of Ecological Solid Waste Management Act of 2000 (RA 9003) is not properly in place. However the monitoring of "Regulatory requirements relating to landfill gas projects" on annual basis has been included in monitoring plan of PDD version 03 to keep a track on the amount on methane that would have been destroyed/ combusted during the year in the absence of the project activity which is found in line with the ACM0001 version 06 and thus accepted.

- The project IRR values without (6.7%) and without CDM revenue (33.4%) has been properly represented in PDD version 03.

- Project IRR calculation for the project activity without or with CDM as provided in PDD version 03 and IRR "Montalban Calculations" worksheet has been checked with reference to the specific techno-economic assumptions made during calculation as follows –

Sl. No.	Parameters	Unit	Value
1	Total CAPEX	US$	35,323,275
2	Total OPEX	US$	51,982,539
3	Total Royalty	US$	22,540,890
4	Depreciation rate	US$	17,034,404
5	Taxes	US$	26,659,908
6	Project operational life time	Years	12
7	Expected LFG capture	m^3	923,278,772
8	Expected electricity exported to the grid	MWh	1,194,514
9	Electricity rate per unit	USD/KWh	0.129
10	Exchange rate for electricity tariff rate	USD/PHP	46.78
11	Annual average emission reduction for 10 years crediting period	tCO_2	589,993
12	Predictable CER price	Euro/CER	12
13	Exchange rate for CER price	EU/USD	1.35

The assumptions used of the project invest analysis calculation has been found satisfactory. The IRR calculation has been checked and seems to be justified, further more the project proponent has submitted the independent Chartered Accountant (ICAEW Membership no. 9179458) certification of the Project IRR values dated 28.11.07, thus the IRR values for the project activity with or without CDM revenue has been accepted.

- The benchmark value referred of the project investment analysis as the Government Bond Rates as seven year Philippine Treasury Bond rate of 6.5% this is in line with the tool for the demonstration and assessment of additionality (version 3). The Govt. Bond rate has been cross checked with the seven year Philippine treasury bond rate of 6.5% from the Philippines Bureau of Treasury (available at http://business.inquirer.net/money/topstories/view_article.php?article_id=92047, last accessed on 3rd Dec 2007), The benchmark value considered for the project investment analysis is well justified as the Treasury Bond provides 6.5% return on investment in seven years whereas the project investment for twelve years without CDM revenue is expected to provide 6.7% IRR as the private investment. Thus the Benchmark value for project IRR has been found justified and the fact of the project activity is unlikely to be financially attractive has been accepted.

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- The description and calculation of sensitivity analysis of project IRR calculation as provided in PDD version 03 and "Montalban Calculations" worksheet for a range of ±10% due assumptions of 10% increase in project revenue from electricity sold to the grid assuming increase in power price 10% reduction in project operational cost and 10% reduction in power generation, this is found satisfactory and justified of financial unattractiveness of the project activity is robust to reasonable variations in the critical assumptions during comparison with the benchmark value.

- With reference to the "The Garbage Book: Solid Waste Management in Metro Manila." Asian Development Bank, 2004, Technical Assistance Completion Report for TA 3848-PHI: Metro Manila Solid Waste Management and "Ecological Solid Waste Management Act of 2000 (RA 9003): A Major Step to Better Solid Waste Management in the Philippines" by Grace P. Sapuay, it is evident that the there are no enforced regulations requiring LFG to be collected/destroyed and the current solid waste management/ disposal facility has been cross checked according to the Solid Waste Inventory - National Solid Waste Management Commission, as of 1st Quarter Updates 2007 (available at http://www.denr.gov.ph/nswmc/6.php, last accessed on 3rd Dec 07) –Total number of open dumpsites - 677 ; controlled dump sites – 343 and sanitary landfill site – 21. The referencing of the single proposed CDM project activity of landfill gas capture and power generation being developed at Payatas controlled dumpsite of Quezon City of Philippines, which has requested registration in CDM modalities (available at http://cdm.unfccc.int/Projects/Validation/DB/5NDQA20R242WZEJ88W2NDIMO5KGXU6/view.html, last accessed on 3rd Dec 07) have been properly provided in PDD version 03, which is checked and found satisfactory. Thus it has been accepted that the project activity (landfill gas recovery and grid connected power generation from landfill site) is not a common practice in the sector and in the region during the time of project validation.

Thus CAR 13 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 13 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
14	CAR	• Provide equations for GHG emission reductions calculation and explanation of the same in line with the methodology with regarding uncertainties in the calculations, data sources or assumptions. • Provide proper explanation of calculations and considerations for the parameter $MD_{project,y}$ - "the amount of methane that would have been destroyed/combusted during the year" in line with the ACM0001 ver6. • Provide customized description for choice of methodology and justification of GHG emission reductions calculation (in case of CO_2 emission factor for baseline electricity and CO_2 emission factor for project electricity consumption scenario) with reference to the project activity. • Provide proper justification of consideration and basis for calculation of CO_2 emission factor for baseline electricity generation and the application of AMS.I.D ver12 ((whether Combined Margin or Weighted average emissions of current generation mix) • Provide calculation worksheet with traceable references for CO_2 emission factor of baseline electricity generation applying AMS.I.D ver12	B.5.1

Date: [13-09-07][Response from project developer]

- An updated equation has been described in the PDD
- An explanation of the customisation of the equation has been provided in the update PDD
- A complete explanation for $MD_{project,y}$ has been described in line with ACM0001 version 6
- Justification for the use of AMS.I.D ver 12 has been provided in the PDD

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- The emission reduction calculation has been provided in Annex 7: 'Montalban Calculations'
- Methodology for Determination of $CEF_{elec,BL,y}$ According to ACM0001 (Version 6), in case the baseline is electricity generated by plants connected to the grid, the emission factor ($CEF_{elec,BL,y}$) should be calculated according to methodology ACM0002 or AMS-I.D may be used if the thresholds for small-scale project activities apply. Since the threshold (15MW) is applicable to the Montalban LFG-to-Power Project, AMS-1.D was used to develop the CEF. One of the options in AMS-1.D is to use the weighted average emissions (in kg CO_{2e}/kWh) of the current generation mix based on data from an official source and made publicly available. Given that the power generated in the project is connected to the Luzon grid, the official power generation data for Luzon from the Philippine Department of Energy (DOE) was used to derive the weighted average emissions. Data on power generation (MWh) by fuel type from all generating stations in Luzon is available from the DOE web site. The fuel types in Luzon include coal, gas, diesel, nuclear, hydro, and other renewable. Fuel-specific emission factors (tonnes CO2/MWh) for Philippine, developed by IEA, are available from the calculation tool of WRI's GHG Protocol. Using the official generation data and the best available emission factors, the weighted average $CEF_{elec,BL,y}$ was developed and used for ex-ante emission reduction calculations.

Date: [19 Sep 07] [Comments from Local Assessor]

- The description of Explanation of methodological choice has not been properly described in line with ACM0001 version 6 and not properly customized for the project activity as provided in section B.6.1 of PDD version 02.
  - The description of methodological choice for determination of "PEflare,y - the project emissions from flaring of the residual gas stream" has not been customized for the involvement of three enclosed flaring systems at the project activity in accordance with the guideline provided by ACM0001 version 6 - "*If methane is flared through more than one flare, the PEflare,y shall be determined for each flare using the tool.*"
  - Please review the equation numbers mentioned in Section B.6.1 of the PDD version 02.
- The basis of calculation regarding CO_2 emission factor for baseline electricity and CO_2 emission factor for project electricity consumption scenario is not clear in PDD version 02. Proper customized description of determination of CO_2 emission factor for baseline electricity and project electricity consumption through on-site DG set power generation should be provided in PDD.
- Approach followed of determination of emission factor of the baseline electricity in accordance with ACM0001version 06 is not clearly reflected in PDD version 02. The method of calculation should be clearly mentioned in relevant section of the PDD.
- The calculation of emission factor of the baseline electricity as provided in worksheet Annex 7: 'Montalban Calculations' is not clear as the –
  - Traceability of the baseline power sector data source has not been provided properly. Provide the proper traceable source (i.e. exact web-link) of the power sector data taken from Philippine Department of Energy (DOE) and Fuel-specific emission factors (tonnes CO2/MWh) for Philippine, developed by IEA, are available from the calculation tool of WRI's GHG Protocol used for determination of Carbon Emission Factor for baseline electricity.
  - The choice between ex-ante and ex-post vintage regarding the determination of emission factor of the baseline electricity should be specified in the PDD.

Date: [28-11-07][Response from project developer]

Regarding the explanation of methodological choice:

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- The full ACM0001 version 6 equation has been provided in the PDD
- PEflare,y has been fully expressed for each of the three flares to be used within the Project Activity
- The description of methodological choice for determination of "PEflare,y - the project emissions from flaring of the residual gas stream" has been updated to reflect that it will be applied separately to each flare installed
- A full review of the equations in the PDD associated with ACM0001 version 6 has been undertaken with the following amendments:
- $EL_{pr,y} * CEF_{elec, PR,y}$: has been applied to:
  - Electricity produced by onsite fossil fuel diesel generator (emergency backup only). The formula is expressed as $EL_{pr,y(DG)} * CEF_{elec, PR,y(DG)}$
- All formula numbers have been reviewed and updated
- All formulas are fully expressed, with any amendments made separately

Regarding the calculation of CO2 emissions factor:

- The determination of the CO2 emission factor for baseline electricity has been fully described in section B.6.1 of the PDD
- Links to data sources on the web employed to calculate the electricity emissions factor have been included in the PDD
- As per the PDD the CO2 emissions factor will be calculated on an annual basis, on an ex-post vintage, and specifically as data becomes available (if data is not made available on an annual basis).

Regarding traceability of baseline power data:

- We used the official power generation data from the Philippines' Department of Energy (www.doe.gov.ph/EP/Powerstat.htm)
- The WRI's GHG Calculation Tool for 'Indirect CO_2 Emissions from the Consumption of Purchased Electricity' (www.ghgprotocol.org/includes/getTarget.asp?type=d&id=MTczNDM) provides the emission factors (in kg CO_2/kWh) prepared by International Energy Agency (IEA) that are specific to Philippines and fuel type (i.e., coal, gas, oil). For ex-ante calculations, we are using the 2006 power generation data and 2004 emission factors, which are the latest years published by the Philippines DOE and WRI (as per the references above).
- Coal, oil and gas coefficients are taken from GhGProtocol Excel Spreadsheet from the above link '**EFs Electricity Intl Coal**', '**EFs Electricity Intl Oil**' and '**EFs Electricity Intl Gas**'; with specific reference to Philippines in each case.
- Both links to data sources are now transparently listed in the updated PDD

Regarding ex-post vintages

- As per the PDD the CO2 emissions factor will be calculated on an annual basis, on an ex-post vintage, and specifically as data becomes available (if data is not made available on an annual basis).

Date: [03 Dec 07] [Comments from Local Assessor]

- The equations for GHG emission reductions calculation and explanation of the same as provided in Section B.6.1 - "Explanation of methodological choices" of PDD version 03, has been checked and found customized to the project activity and in line with the methodology.
- The further description provided for calculations and considerations of the parameter $MD_{project,y}$ - "the amount of methane that would have been destroyed/combusted during the year" in Section B.6.1 - "Explanation of methodological choices" of PDD version 03, has been checked and found justified and in line with the ACM0001 ver6.
- The further elaboration provided in Section B.6.1 - "Explanation of methodological choices" of PDD version 03 has been checked and found customized of choice of methodology for the project activity

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and justification of GHG emission reductions calculation (in case of CO_2 emission factor for baseline electricity and CO_2 emission factor for project electricity consumption scenario) has been found satisfactory and well substantiated.

- The revised description of consideration and basis for calculation of CO_2 emission factor for baseline electricity generation and the application of AMS.I.D ver12 (Weighted average emissions of current generation mix) as provided in Section B.6.1 - "Explanation of methodological choices" of PDD version 03 has been checked and found justified.
- The project proponent has provided calculation worksheet with traceable references for CO_2 emission factor of baseline electricity generation applying AMS.I.D ver12, the traceability of the figures has been cross checked with reference to the Philippines Department of Energy (www.doe.gov.ph/EP/Powerstat.htm , last accessed on 3rd Dec 07) and the fuel-specific emission factors used for determination of Carbon Emission Factor for baseline electricity has been cross checked with the traceable source of 'Indirect CO2 Emissions from the Consumption of Purchased Electricity' prepared by International Energy Agency (IEA - www.ghgprotocol.org/includes/getTarget.asp?type=d&id=MTczNDM , last accessed on 3rd Dec) that are specific to Philippines, which are found satisfactory.

Thus, CAR 14 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 14 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
15	CAR	Provide clear description of equations and assumptions regarding the project emissions calculation for flaring of landfill gases containing methane and a stationary combustion of diesel engine for on-site power generation.	B.5.2

Date: [13-09-07][Response from project developer]

Flaring has been estimated for and clearly expressed in Annex 7: 'Montalban Calculations'. The default assumption is that 5% of total LFG captured will be flared; and therefore 95% of captured LFG will be destroyed in the power generators.

The on-site generator will be installed for emergency generation purposes only. The generators capacity is 600 kW. It is conservatively assumes that it will have an operating factor of 5% per year. Based on the assumptions provided below (taken from Annex 7: 'Montalban Calculations') the onsite generator should only produce 199 tCO2 per year, which represents less than 0.01% of total emission reductions.

The emissions arising from the onsite diesel generator are account for by the ex ante forecasts of total emission reductions.

GHG Emissions from On-site Diesel Generator for Emergency Purposes

Heat Value	46	MJ per kg diesel
Emission Factor	3.2	kg CO2 per kg diesel
Emission Factor	0.07	kg CO2 per MJ diesel
Emission Factor	**69.57**	**tonnes CO2 per TJ diesel**

Installed Capacity of the Diesel Generator	600	kW
=	0.6	MW
Capacity Factor	5%	capacity factor
kWh Generated Annually	262,800	kWh
Equivalent Output in MJ		MJ

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	946,080	
Equivalent Output in TJ	0.95	TJ
Energy Input	2.87	TJ
GHG Emissions	199	tonnes CO2

Date: [19 Sep 07] [Comments from Local Assessor]

- The description of Explanation of methodological choice should include equations and assumptions regarding the project emissions calculation for flaring of landfill gases containing methane and a stationary combustion of diesel engine for on-site power generation.
- Consideration of "Heat Value" for diesel oil is not clear, whether it is lower heat value or higher. Provide specific reference and source of the "Heat Value" of diesel oil as considered.
- The ex-ante calculation of project emissions due to operation of DG set (1x 600 KW) is not clear please provide justification of consideration of only 5% capacity factor for the same.

Date: [28-11-07][Response from project developer]

Regarding explanation of methodological choice of project emissions calculation from flaring of landfill gases containing methane:

The detail methodological choice regarding project emissions calculation from flaring of landfill gases has been described in accordance with "Tool to determine project emissions from flaring gases containing Methane - EB28" along with all assumptions in revised PDD.

Regarding explanation of methodological choice of ex-ante project emissions calculation from DG set operation:

$$CEF_{elec,PR,y} = EF_{fuel,PR} / (\varepsilon_{gen,PR} * NCV_{fuel,PR}) * 3.6$$

$EF_{fuel,PR}$	3.2	kg CO2 per kg diesel
$\varepsilon_{gen,PR}$	37%	efficiency
$NCV_{fuel,PR}$	43.33	MJ per kg diesel
Unit Conversion	3.6	MJ per kWh
$CEF_{elect,PR,y}$	0.725	kg CO2/kWh

Installed Capacity of the Diesel Generator	600	kW
=	0.6	MW

Capacity Factor	5.0%	capacity factor
kWh Generated Annually	262,800	kWh
GHG Emissions	190,554	kg CO2
	191	tonnes CO2

Description:
To calculate the project emissions associated with the on-site diesel generator, the emission factor ($CER_{elec,pr,y}$) was applied to the amount of electricity generated by the diesel generator. The emission factor was calculated using equation 8 in ACM0001. The amount of electricity was calculated based on the capacity of the diesel generator (0.6 MW) and a conservative assumption that the backup generator is used 5% of the time in a year. This is because a backup or standby generator is used only when the main power source (in this case, the electrical grid) is not working. Thus, for this project, it has been assumed that the capacity

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factor of the diesel generator is only 5% as it will run in its full capacity for not more than 438 hours or 18.25 days in a year. According to Transco, the Luzon grid has not experienced a major black-out, thus there is no need to use the backup generator; the assumption for 5% is thus conservative.

Both heat value and emission factor are IPCC values. The IPCC heat value is 43.7 MJ per kg diesel on a LHV (=NCV) basis and the emission factor (3.2 kg CO2 per kg diesel) is on a LHV basis. The emission factor (3.2 kg CO2 per kg diesel) is referenced in AMS 1.D - Table 1.D.1 - Emission Factor for Generator System.

- This information may also be found in Annex 7a: 'Montalban Calculations'

Date: [03 Dec 07] [Comments from Local Assessor]

- The methodological choice of project emission calculation from flaring of landfill gases as provided in PDD version 03 has been checked and found justified and in line with the ACM0001 version 01.

- The methodological choice of project emission calculation from DG set operation as provided in PDD version 03 and ex-ante calculation procedure has been checked and found satisfactory with requirement of ACM0001 version 6 and AMS-I.D. version 12 and NCV of the diesel oil and emission factor values for the same has been applied in line with the AMS-I.D.

Thus CAR 15 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 15 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
16	CAR	The description of the ex-ante parameters available at validation in section B.6.2 of PDD version 01 is not customized in accordance with the project scenario. • Provide justification of consideration of "AF", "$CEF_{electricity}$ " and "$CEF_{thermal}$ " • Provide justification of why standard default values "$EF_{fuel,PR}$" ; "$NCV_{fuel,PR}$" of project emissions calculation has not been included in parameters available at validation in section B.6.2 of PDD.	B.6.1

Date: [13-09-07][Response from project developer]

- PDD updated accordingly with to provide a complete justification of AF
- Standard values for "$EF_{fuel,PR}$" ; "$NCV_{fuel,PR}$" updated in the PDD using IPCC values

Date: [19 Sep 07] [Comments from Local Assessor]

- According to the description of $CEF_{elec,BL,y}$ - 'CO2 emissions factor for electricity' in section B.6.2 of PDD version 2, the emission factor for the baseline electricity which has been determined on the basis of The weighted average emissions (in kg CO2e/kWh) of the current generation mix, can not be fixed for the duration of the crediting period. According to AMS.I.D version 12 para 9. b) – "The data of the year in which project generation occurs must be used." Please justify.

Date: [28-11-07][Response from project developer]

Regarding CEFelec,BL,Y:

- As per the PDD the CO2 emissions factor will be calculated on an annual basis, on an ex-post vintage, and specifically as data becomes available (if data is not made available on an annual

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basis).

Date: [03 Dec 07] [Comments from Local Assessor]

The description of the ex-ante parameters available at validation in section B.6.2 of revised PDD version 03 has been checked and found customized in accordance with the project scenario and all the non conformities have been rectified properly, which has been accepted.

Thus, CAR 16 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 16 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
17	CAR	Provide data source and basis of the value for CO_2 emission factor for baseline electricity generation	B.6.2

Date: [13-09-07][Response from project developer]

Annex 7: 'Montalban Calculations' provides a clearly defined list of data sources.

- The Luzon grid is the only grid connection that covers the Metro Manila area. A full report and review of the Luzon grid has been attached as Annex 'Annex 22 - Market Simulation - Luzon Grid'
- Electricity generation data has been provided by the Philippines Department of Energy - Philippines Power Statistics: http://www.doe.gov.ph/EP/Powerstat.htm
- Emissions factors for power generation have been derived from IEA Data (from WRI GHG Protocol's Calculation Tool).

Date: [19 Sep 07] [Comments from Local Assessor]

The data of power generation mix for 2006 and power generation values for 2006 as applied for CO_2 emission factor for baseline electricity generation has been cross checked with reference to the Power statistics data available at Philippines Department of Energy - Philippines Power Statistics: http://www.doe.gov.ph/EP/Powerstat.htm and found transparent. Hard copies of the power baseline data has been obtained from the project proponent.

Mention the proper traceable source (i.e. exact web-link) of the fuel-specific emission factors (tonnes CO2/MWh) for Philippines, developed by IEA, used for determination of Carbon Emission Factor for baseline electricity.

Date: [28-11-07][Response from project developer]

Regarding traceable data sources:

- The WRI's GHG Calculation Tool for 'Indirect CO_2 Emissions from the Consumption of Purchased Electricity' (www.ghgprotocol.org/includes/getTarget.asp?type=d&id=MTczNDM) provides the emission factors (in kg CO_2/kWh) prepared by International Energy Agency (IEA) that are specific to Philippines and fuel type (i.e., coal, gas, oil).
- Coal, oil and gas coefficients are taken from GhGProtocol Excel Spreadsheet from the above link 'EFs Electricity Intl Coal', 'EFs Electricity Intl Oil' and 'EFs Electricity Intl Gas'; with specific reference to Philippines in each case.
- Both links to data sources are now transparently listed in the updated PDD

Date: [03 Dec 07] [Comments from Local Assessor]

The fuel-specific emission factors used for determination of Carbon Emission Factor for baseline electricity

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has been cross checked with the traceable source of 'Indirect CO2 Emissions from the Consumption of Purchased Electricity' prepared by International Energy Agency (IEA) that are specific to Philippines and fuel type as referred by the project proponent, which are found satisfactory and those are applied to the baseline Emission Factor calculation properly as provided in spreadsheet named "Luzon Grid Emissions Calculations". Thus, CAR 17 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 17 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
18	CAR	• Provide calculation basis of the ex-ante emission reductions projection. • Provide the verifiable detail information regarding US EPA decay model equation used for ex-ante estimation of baseline landfill gas emissions. • Provide the input factors used and sources of the input factors used of ex-ante emission reductions calculations. • Provide information regarding power baseline emissions. • Provide clarification how the project emissions has been considered and equations used for the same. • Provide details of equation used for ex-ante emission reductions and detail calculation worksheet.	B.7.1

Date: [13-09-07][Response from project developer]

- Annex 7: 'Montalban Calculations' provides a complete and transparent calculation of ex-ante emission reduction projections, including those emissions generated by the onsite emergency diesel generator.
- The LandGem model, on which the emission reduction calculations are based, is included as Annex 10:'Landgem Model'
- All input values for ex-ante emission reductions calculations are clearly stated in Annex 7: 'Montalban Calculations'
- Methodology for determination of $CEF_{elec,BL,y}$ According to ACM0001 (Version 6), in case the baseline is electricity generated by plants connected to the grid, the emission factor ($CEF_{elec,BL,y}$) should be calculated according to methodology ACM0002 or AMS-I.D may be used if the thresholds for small-scale project activities apply. Since the threshold (15MW) is applicable to the Montalban LFG-to-Power Project, AMS-1.D was used to develop the CEF. One of the options in AMS-1.D is to use the weighted average emissions (in kg CO_{2e}/kWh) of the current generation mix based on data from an official source and made publicly available. Given that the power generated in the project is connected to the Luzon grid, the official power generation data for Luzon from the Philippine Department of Energy (DOE) was used to derive the weighted average emissions. Data on power generation (MWh) by fuel type from all generating stations in Luzon is available from the DOE web site. The fuel types in Luzon include coal, gas, diesel, nuclear, hydro, and other renewable. Fuel-specific emission factors (tonnes CO2/MWh) for Philippine, developed by IEA, are available from the calculation tool of WRI's GHG Protocol. Using the official generation data and the best available emission factors, the weighted average $CEF_{elec,BL,y}$ was developed and used for ex-ante emission reduction calculations.

Date: [19 Sep 07] [Comments from Local Assessor]

- The ex-ante CER calculations and assumptions considered during the calculation as provided in Annex 7: 'Montalban Calculations' as provided by the project proponent is not clear, as -
  - The assumptions and input data provided for 'Capacity of Electricity Generation with the CH4 Available' in spreadsheet named "Factors" are incomplete and the sources of the specific

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data applied have not been provided properly.

- Consideration of installed capacity of the power generation activity is not clear as the calculations at the spreadsheets named 'CER Forecast' and 'MWh_Finance' in 'Annex 7: Montalban Calculations' as provided by the project proponent showing the power generation installed capacity of the project activity is crossing the 15 MW threshold limit during 2013 and onwards within the selected 10 years fixed crediting period (2007 – 2017) for the project activity and the ex-ante CER calculations has been represented considering the same.
- Project emissions calculation is not clear.

- The representation of projected landfill gas generation figures provided by the project proponent has been checked and the traceability of First-order decomposition rate equation based model "LandGEM, Landfill Gas Emissions Model, version 3.02 – U.S. Environmental Protection Agency" used for ex-ante calculation LFG generation figures has been checked and found verifiable.
  - the basis and source of the year wise "waste acceptance rates" figures used as the input of the "LandGEM " model is not clear.
- The various assumptions and step wise (CERs from CH4 Destruction – Flaring, CERs from CH4 Destruction - Power Generation & CERs from Power Generation) Emission Reductions calculations as provided in spreadsheet named "CER Forecast" in Annex 7a– Montalban Calculations has not been reflected in PDD version 02.
- All appropriate explanation of Ex-ante CER calculations such as basis of LFG generation projections, step wise CER calculations (showing baseline emissions, project emissions and leakage emissions) has not been provided in section B.6.3 of PDD.
- The ex-ante calculations of Carbon emission factor for electricity generation through on-site DG sets and project emissions are not clear as –
  - the calculation has not been done in accordance to the formula provided in ACM0001 version 06 for $CEF_{elec,PR,y}$.
  - the application of Heat Value for diesel considered for the calculation is not clear. The IPCC default NCV for diesel oil – 43.33 Tj/Gg as mentioned in section B.6.2 of PDD version 02 has not been considered.
  - Consideration of only 5 % capacity factor for the DG set during calculation of project emission is not clear.

Date: [28-11-07][Response from project developer]

Regarding the CER ex-ante calculations

- Factor spreadsheet now updated.
- Annex 7a has been updated to show that total installed capacity is limited to 15 MW.
- Annex 7a calculations (CER Forecast) follows Equation 1 on B,6,1.

Regarding landfill gas generation figures

- See response to CAR 29.

Regarding calculation of ex-ante emissions in B.6.3:

- Annex 7a in 'Eq MD' and 'Eq EG' provides a complete and transparent calculation of ex-ante emission reduction projections, while 'Diesel Gen' includes those emissions generated by the onsite emergency diesel generator.

Regarding the various assumptions and stepwise calculations in "CER Forecast":

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- This has been clearly explained in B.6.1 and B.6.4

Regarding the ex-ante calculation of $CEF_{elec,PR,y}$ and the onsite diesel generator:

- Methodology for determination of carbon emission factor for electricity generation in the project activity, the emission factor for on-site back-up DG set operation has been taken into consideration and CEFelec,PR,y has been calculated using equation 8 in ACM0001 (Version 6), considering IPCC default value for emission factor for fossil fuel (diesel) used, IPCC default value NCV of fossil fuel used as described in Table I.D.1 of AMS-I.D version 12 and efficiency of 37% as per manufacturer's specification.
- The parameter $NCV_{fuel,PR}$ has been used in Equation 8.
- The amount of electricity was calculated based on the capacity of the diesel generator (0.6 MW) and a conservative assumption that the backup generator is used 5% of the time in a year. This is because a backup or standby generator is used only when the main power source (in this case, the electrical grid) is not working. Thus, for this project, it has been assumed that the capacity factor of the diesel generator is only 5% as it will run in its full capacity for not more than 438 hours or 18.25 days in a year. According to Transco, the Luzon grid has not experienced a major black-out, thus there is no need to use the backup generator, the assumption for 5% is thus conservative.

Date: [03 Dec 07] [Comments from Local Assessor]

- The assumptions considered regarding Capacity of Electricity Generation with the CH4 Available, Consideration of installed capacity of the power generation activity, Project emissions calculation for flaring and on-site back up DG set operation for ex-ante CER calculations as provided in revised ex-ante calculation work sheet named 'Montalban Calculations' has been checked and found systematic and justified.
- The basis and source of the year wise "waste acceptance rates" figures used as the input of the "LandGEM " of calculation of ex-ante LFG generation projections has been cross checked with reference to the "Rodriguez Landfill Methane Recovery And Electricity Generation CDM Project - Feasibility Study Report" conducted by Japan Engineering Consultants Co., Ltd. during May 2007 and the assumptions of 2% growth factor has been also cross checked with reference to the capability statement of Expert Landfill Gas Reviewer appointed for the project activity and found satisfactory and thus accepted.
- The various assumptions and step wise (CERs from CH4 Destruction – Flaring, CERs from CH4 Destruction - Power Generation & CERs from Power Generation) Emission Reductions calculations as provided in spreadsheet named "CER Forecast" in Montalban Calculations worksheet has been checked and found justified and all the assumptions and step wise ex-ante calculation procedure has been properly reflected in PDD version 03.
- The description of ex-ante calculation of emission reductions with the details of basis of LFG generation projections, baseline emissions, project emissions and leakage emissions in section B.6.3 of PDD version 03 and the ex-ante assumptions made of the same has been checked and found satisfactory as the project activity is a future activity.
- The ex-ante calculations of Carbon emission factor for electricity generation through on-site back-up DG sets and project emissions regarding the same as provided in ex-ante calculation sheet named "Montalban calculation" has been checked and the consideration of real time data for ex-post calculation regarding the same as mentioned in PDD version 03 is now clear and satisfactory.

Thus, CAR 18 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 18 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref

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19	CAR	• Provide proper description of the data/ parameter to be monitored. • Provide clarification of consideration of "ET_{PR}"; "$CEF_{elec,BL}$" ; "$EF_{fuel,PR}$" ; "$NCV_{fuel,PR}$" ; "ET_y" .	B.9.1

Date: [13-09-07][Response from project developer]

- PDD updated to reflect monitoring parameters
- Onsite fossil fuel power generation is now included within the project. Consequently, the parameters that should be monitored have also been updated and included.

Date: [19 Sep 07] [Comments from Local Assessor]

- Description of the data/ parameter to be monitored provided in section B.7.1 of PDD version 02 is still not appropriate and unclear –
  - Parameter: EL_{PR} – Description is not at all clear, please review and clarify in line with ACM0001 version 06.
  - Parameter: $CEF_{elec,BL}$ – According to the description of 'CO2 emissions conversion factor for electricity' in section B.7.1 of PDD version 2, the emission factor for the baseline electricity which has been determined on the basis of The weighted average emissions (in kg CO2e/kWh) of the current generation mix, can not be fixed for the duration of the crediting period. According to AMS.I.D version 12 para 9. b) – "The data of the year in which project generation occurs must be used." Please clarify.
  - Parameter: $CEF_{elec,y,PR,y}$ – the description regarding requirement of CO2 emission factor for electricity consumed by the project activity that is produced using fossil fuel consumption for the operation of 600 KW DG set has not properly provided.
  - Parameter: $NCV_{fuel,PR}$ & $EF_{fuel,PR}$ - has been already mentioned in section B.6.2 of PDD version 2 as the ex-ante fixed data.
  - Parameter: ET_y & $ET_{PR,y}$ – The consideration of these parameters and monitoring descriptions as mention in PDD version 02 are confusing. Please clarify.

Date: [28-11-07][Response from project developer]

- The PDD has now been updated to clarify the above issues. Please see B.7.1

Date: [03 Dec 07] [Comments from Local Assessor]

The description of the data/ parameter to be monitored as provided in section B.7.1 of PDD version 03 specifically for EL_{PR} , $CEF_{elec,BL}$, $CEF_{elec,y,PR,y}$, has been checked and found clear and satisfactory with reference to the applied methodology ACM0001 version 06 and project modalities. Thus, CAR 19 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 19 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
20	CAR	• Provide clear description about overall authority and responsibility of project management. • Provide clear description about authority and responsibility for project registration.	B.12.1

Date: [13-09-07][Response from project developer]

- Given that the Project Activity is still being developed project management plans are still being developed. However, MMPC will have overall authority and responsibility for all project

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management aspects of the Project Activity
- Carbon Capital Markets Ltd, in partnership with MMPC is responsible for and has authority of the registration of the Project Activity. This is further evidenced in Annex 3: Modalities Communication

Date: [19 Sep 07] [Comments from Local Assessor]

- The overall responsibility of project management and authority for project registration has been cross checked with reference to the annex 1 of the PDD version 02 and Modalities of Communication but subject to closure of NIR 03 which is pending.

- The fact of the overall responsibility of project management and authority for project registration has to be represented clearly in PDD.

Date: [28-11-07][Response from project developer]

Regarding overall project responsibility

- An updated Modalities of Communication has been prepared and signed as reflected in Annex 3: Modalities of Communication
- Please note our response to CAR 03.
- Text highlighting the overall project responsibilities has been added to the updated PDD in Section B.7.2

Date: [19 Sep 07] [Comments from Local Assessor]

- The description of overall responsibility of project management and authority for project registration as provided in Monitoring Plan, Annex 1 & Annex 4 of revised PDD version 3 has been checked and found satisfactory.

Thus CAR 20 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 20 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
21	NIR	Provide elaborate project management procedures regarding day-to-day records handling, review.	B.13.6

Date: [13-09-07][Response from project developer]

The operational manual for the project has not yet been defined. However, SGS's site visit revealed that much work is under way to ensure that a complete manual is in place in preparation of the Project Activity commencing power generation.

Date: [19 Sep 07] [Comments from Local Assessor]

The description project management modalities such as responsibility of members of the monitoring team; routine reminders for site staff; QA/QC procedures; service forms for data reporting; corrective action plans; maintenance plans; and monitoring schedules as described in Section B.7.2 - Description of the monitoring plan and Annex 4 f the PDD version 03 has been checked and found satisfactory and justified as the project activity is a future one, thus, NIR 21 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] NIR 21 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

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No.	Type	Issue	Ref
22	NIR	Provide clarification for the basis of the project start date consideration.	C.1.1

Date: [13-09-07][Response from project developer]

The start date of the Project Activity is based on when the works are expected to be complete. Depending on the delivery date of technical equipment the start date may be pushed back by 2-4 weeks. The start date and timeline of activities are presented in Annex 6a: 'Organics Supply and Installation Contract' in Appendix (b). 1 First Schedule.

Date: [19 Sep 07] [Comments from Local Assessor]

- The clarification of project start date is still not clear; please describe the project start date in accordance with the guideline provided by UNFCCC – EB and provide the relevant supporting document for the same.

- The Montalban Methane Power Corp's Contract Agreements of 'Supply and installation – Annex 6a', with 'Organics Asia Company Ltd.', as provided by the project proponent is not appropriate and authenticated. The contract agreement document is a draft one and does not contain any appendix. Provide signed and authenticated contract agreement.

Date: [28-11-07][Response from project developer]

Regarding Project Activity start date:

The starting date on the PDD has been changed and is now based on the commissioning date of flaring, see the following documents:

- Annex 16 – 'MMPC Status update' has been added as a new Annex to highlight progress to date regarding the implementation of the project. This should be considered a general reference document than only
- Annex 24 'Organics Declaration – Signed' provides information regarding the commissioning date of flaring

Date: [03 Dec 07] [Comments from Local Assessor]

The start date of the project activity as provided in revised PDD has been validated as the date of Design, manufacture, supply & installation of materials, equipment & services to complete the landfill gas fired power generating plant contract signed between MMPC and Monark Equipment Corporation. The project activity start date as 31/07/2007 was found satisfactory and in line with definition of "Starting date of a CDM project activity" provided by UNFCCC. Copy of the supporting document has been obtained from the project proponent. Thus, NIR 22 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] NIR 22 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
23	NIR	Provide the Environmental Compliance Certificate (ECC) by the local government body, NOC issue by the Department of Environmental and Natural Resources, Govt. of Philippines, Govt. approval & relevant environmental clearances for existing sanitary landfill site and any other relevant environmental clearance or approvals for the project activity from relevant govt. authority (municipal, state and national level) to be provided by the project proponent.	D.1.1

Date: [13-09-07][Response from project developer]

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The approved ECC has been provided in Annex 13: 'Montalban ECC'

Date: [19 Sep 07] [Comments from Local Assessor]

The copies of the Environmental Compliance Certificate (ECC) (ref. ECC0403-010-213 dated 25 Aug 04) obtained for the landfill site and No Objection Certificate (NOC) dated 21 Feb 07 from Department of Environment and Natural Resources (DENR) Republic of the Philippines for the power generation activity has been obtained from the project proponent and checked with original copies. It was found justified and satisfactory. Thus NIR 23 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] NIR 23 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
24	CAR	Provide proper reference of the relevant legislative requirement nullifying the requirement of EIA study for the project activity.	D.1.3

Date: [13-09-07][Response from project developer]

An EIA is not required for the Project Activity. Annex 14 – 'Letter of no Objection' stipulates the requirements that the Project Activity must meet, and further specifies that an EIA is not required in this case.

Date: [19 Sep 07] [Comments from Local Assessor]

- The No Objection Certificate (NOC) dated 21 Feb 07 from Department of Environment and Natural Resources (DENR) Republic of the Philippines, for the power generation activity has been obtained from the project proponent and checked with original copies. It was found justified and satisfactory.

- The NOC letter states according to the DENR Administrative Order No. 2003-30, the project activity comes in 'Category C - Projects intended to directly enhance environmental quality or address existing environmental problems not falling in Category A or B.' Please provide the complete reference of the DENR Administrative Order No. 2003-30 along with Category A, B & C for better clarity.

[Acceptance and close out]

Date: [28-11-07][Response from project developer]

Regarding the NOC letter:

- The DENR Administrative Order No. 2003-30, can be found at: http://www.emb.gov.ph/laws-eia.htm; additionally, it has been added as Annex 25 'Annex 25 - DAO30'

Date: [03 Dec 07] [Comments from Local Assessor]

The Procedural Manual of Department of Environment and Natural Resources (DENR) Republic of the Philippines Administrative Order No. 2003-30 has been submitted by the project proponent and definition of Category C project and applicability of EIA for the same has been cross checked with the Scope of the Philippine EIS System. The clarification of non applicability of mandatory EIA study for the Project activity (Category C) is clear now. Thus CAR 24 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 24 closed

Date: 23- Aug-2007 Raised by: Pankaj Mohan

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No.	Type	Issue	Ref
25	NIR	Provide a list of consulted local stakeholder.	E.1.1

Date: [13-09-07][Response from project developer]

A complete list of consulted local stakeholders is provided in Annex 8b: Preliminary Stakeholder Consultation Minutes. Participants included:

- Municipality of Rodriguez
- MMPC
- Representatives of the local media

The second stakeholder consultation contained more than three hundred participants. Names and signatures of all participants are in hard copy only and will be made available on request. Participants included representatives of/from:

- Municipality of Rodriguez
- Waste pickers group: SLABA
- MMPC
- Dumpsite Task Force
- Local residents

		stakeholder. Provide report or minutes of local stakeholder consultation meeting with attendance list. Provide summary of the comments received from local stakeholder.	

Date: [13-09-07][Response from project developer]

- Annex 8d: 'Main Stakeholder Consultation Minutes'
- Comments were recorded on video and answered, where possible, directly. Minutes of the meeting compiled after the consultation was complete
- All comments received are provided for in Annex 8d: 'Main Stakeholder Consultation Minutes'

Date: [19 Sep 07] [Comments from Local Assessor]

- The procedure followed for invitation of comments from the local stakeholders is not clear. Please provide the supporting document.
- The project proponent has provided the detail power point presentation in English and local language which was presented during the Local Stakeholder Consultation meeting organised on 12 July 2007 and the detailed minutes of the LSC meeting containing detailed programme agenda and points discussed during the meeting, which has been checked and found satisfactory.
- Provide the complete attendance list of the LSC meeting with Names and signatures of all participants.

Date: [28-11-07][Response from project developer]

Regarding the main stakeholder consultation referred to in the PDD

- Additional text pertaining to the procedure followed for inviting comments from local stakeholders has been added to the updated PDD
- The consultation was promoted by using banners that were located within the vicinity of the site and in the surrounding communities (Annex 8h – Promotional Pictures)
- The consultation was further promoted through invitation letters and distribution of leaflets promoting the consultation. Leaflets were distributed by hand and posted to targets local communities and potentially affected stakeholders (Annex 8i - Main Stakeholder Promotional Leaflet; Annex 30 - Stakeholder Letter of Invitation)
- A complete attendance sheet has been provided of all participating individuals and their signatures (Annex 8g - Main Stakeholder Consultation Attendance)

Date: [03 Dec 07] [Comments from Local Assessor]

- The procedure of invitation of local stakeholders for LSC meeting in CDM modalities has been cross checked with reference to the six numbers project publicity articles published in local news paper dated 7th June and 8th June 2007 containing non-technical description of the project activity and consideration CDM modalities; invitation letter to the Governor of Provincial Government of Rizal dated 29 July 2007; photographs of promotional banners at the public place and promotional leaflets which are found justified and satisfactory.
- The complete attendance list of the LSC meeting duly signed by the individual participants has been obtained from the project proponent, which was checked and found satisfactory.

Thus NIR 26 can be closed out.

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Date:07-12-2007 [Pankaj Mohan] [Acceptance and close out] NIR 26 closed

Date: 3- Sep-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
27	CAR	Provide customized the power generation scenario in accordance with the project implementation plan during calculation of ex-ante emission reductions value instead of considering total 15 MW from the day one.	Site visit

Date: [13-09-07][Response from project developer]

'Annex 7: Montalban Calculations' has a progressive value for power generation to come online, based on the projected availability of gas. Based on this approach 15 MW of installed capacity is not completed until 2013.

Date: [19 Sep 07] [Comments from Local Assessor]

Consideration of installed capacity of power generation in the project scenario and CER calculation is not clear. According to the PDD version 02, the power generation component of the proposed LFG recovery and power generation project activity has been framed under threshold limit of small scale CDM project i.e. ≤15 MW in accordance to the AMS.I.D version 12, but the calculations at the spreadsheets named 'CER Forecast' and 'MWh_Finance' in 'Annex 7: Montalban Calculations' as provided by the project proponent showing the power generation installed capacity of the project activity is crossing the 15 MW threshold limit during 2013 and onwards within the selected 10 years fixed crediting period (2007 – 2017) for the project activity and the ex-ante CER calculations has been represented considering the same. Please clarify the basis of consideration in terms of project design and applicability of the methodology.

Date: [28-11-07][Response from project developer]

Regarding consideration of installed capacity:

- Total installed capacity in Annex 7a: 'Montalban Calculations' is limited to 15 MW
- AMS I.D version 12 is consequently correctly applied

Date: [03 Dec 07] [Comments from Local Assessor]

The revised ER calculation sheet named "Montalban Calculations" provided by the project proponent has been cross checked, where emission reduction projected values from power generation has been customised as per the progressive addition of Turbine Generator capacity up to 15 MW based on project availability of landfill gas, this is found justified and thus accepted. Thus CAR 27 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 27 closed

Date: 3- Sep-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
28	CAR	Provide supporting documents of the assumptions made for representation of projected landfill gas generation figures provided as baseline information in annex 3.	Site visit

Date: [13-09-07][Response from project developer]

Annex 12: Montalban Feasibility study (Parts 1 and 2) provide information on LFG availability. However, our own expert team found that the study conducted by the third party was not conservative. Onsite testing provided much lower results which were used and have been reflected in Annex 10: LandGem Model

Date: [19 Sep 07] [Comments from Local Assessor]

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The representation of projected landfill gas generation figures provided by the project proponent has been checked and the traceability of First-order decomposition rate equation based model "LandGEM, Landfill Gas Emissions Model, version 3.02 – U.S. Environmental Protection Agency" used for ex-ante calculation LFG generation figures has been checked and found verifiable.

But the basis and source of the year wise "waste acceptance rates" figures used as the input of the "LandGEM " model is not clear. Please explain.

Date: [28-11-07][Response from project developer]

- Waste acceptance rates are in line with the technical pre-feasibility study undertaken. The pre-feasibility study (provided separately to the DOE) assumes a waste acceptance rate of 3,000 tonnes per day; with an annual 2% growth factor applied based on expert on-the-ground review of the operations and expected future delivery of waste to the site.

- The waste acceptance rates are based on the opinion of our appointed Expert Landfill Gas Reviewer. See Annex 38: 'Gas Modelling Expert Resume' for a detailed review of our Expert's experience.

Date: [03 Dec 07] [Comments from Local Assessor]

The year wise waste acceptance rate at the landfill site as considered of the calculation of projected landfill gas generation values has been cross checked with reference to the "Rodriguez Landfill Methane Recovery And Electricity Generation CDM Project - Feasibility Study Report" conducted by Japan Engineering Consultants Co., Ltd. during May 2007 and the assumptions of 2% growth factor has been also cross checked with reference to the capability statement of Expert Landfill Gas Reviewer appointed for the project activity and found satisfactory and thus accepted. Hence, CAR 28 can be closed out.

Date:07-12-2007 [Pankaj Mohan]
[Acceptance and close out] CAR 28 closed

Date: 3- Sep-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
29	CAR	Provide clear description of landfill gas flaring systems to be implemented in project activity and project emissions calculation regarding LFG flairing in accordance with the methodology and applicable methodological tool.	Site visit

Date: [13-09-07][Response from project developer]

- The landfill gas pumping and flaring system is well documented in: Annex 6a: 'Organics Supply and Installation Contract'; and Annex 6b: 'Organics Design Supply and Installation Contract'
- Gas flow rates and their incorporation into calculations have been provided in Annex 7: 'Montalban Calculations'

Date: [19 Sep 07] [Comments from Local Assessor]

Customised description and consideration of three enclosed gas flaring system will be deployed by the project activity has not been included in PDD version 02 and description of project design/monitoring of determination of project emissions from gas flaring to be provided in section B.6.1 of the PDD.

Date: [28-11-07][Response from project developer]

- PEflare,y has been fully expressed for each of the three flares to be used within the Project Activity.
- Detailed description on the landfill gas pumping and flaring systems can be found on Annex 6b, see Fifth Schedule.

Date: [03 Dec 07] [Comments from Local Assessor]

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The calculation procedure of project emissions from three enclosed flaring system in accordance with the "Tool to determine project emissions from flaring gases containing Methane - EB28" has been properly described in Section B.6.1. - Explanation of methodological choices of the revised PDD version 03, which is justified and in line with the ACM0001 version 06. Thus CAR 29 can be closed out. Date:07-12-2007 [Pankaj Mohan] [Acceptance and close out] CAR 29 closed

Date: 3- Sep-2007 Raised by: Pankaj Mohan

No.	Type	Issue	Ref
30	NIR	Provide Power Purchase Agreement signed with the relevant electricity authority and include the relevant terms and conditions under PPA of project design (such as power metering, calibration etc.) and revenue consideration.	Site visit

Date: [13-09-07][Response from project developer]

The PPA is presently being negotiated and whilst not yet complete is therefore not available for distribution. Making reference to publicly available power pricing information we have referred to the published report 'Philippines: Power Sector Profile and Roadmap' (Annex 11). Page 32 describes typical public prices for power which highlights prices at around P6.0375 per kWh, which is line with our assumption of USD 0.13 assuming a currency conversion factor 1 USD = 46.7797 Philippines Pesos (www.xe.com, dated 10-09-2007) of as highlighted in Annex 7: 'Montalban Calculations'.

Date: [19 Sep 07] [Comments from Local Assessor]

Power Purchase Agreement (PPA) is a significant document responsible of the specific terms and conditions for electricity evacuation to the grid system and also required to justify the clearance/approval from the concerned government authority for the project activity.
Thus, provide the signed PPA, and incorporate all the specific terms and conditions of the project design (such as electricity metering procedure, location of metering equipment(s), calibration of the metering equipment(s) and responsibility for the same in PDD.

Date: [28-11-07][Response from project developer]

Regarding the PPA:

- The PPA will not be agreed and signed until January at the earliest. Consequently, it is not available for review by SGS. Having discussed this issue with SGS it has been communicated that MMPC only need to provide information regarding firstly, that the Project Activity is approved to connect to the Luzon grid; and secondly, that MMPC is responsible for the monitoring of onsite equipment that provides data regarding electricity generated and sent to the grid, equipment calibration, etc.
- MMPC has submitted the draft Power Purchase & Sale Agreement (Annex 39 - MMPC Draft PPA) to the DOE.
- MMPC have signed a declaration (Annex 15 'MMPC Declaration') that states the Project Activity will be connected to the Luzon Grid; and that they are responsible for the monitoring and calibration of electricity equipment sent to the grid.
- Annex 21 'MMPC Power Generation Declaration – signed' highlights the responsibilities of MMPC for generating power and sending it to the Luzon grid.
- The Luzon grid is the only grid connection that covers the Metro Manila area. A full report and review of the Luzon grid has been attached as Annex 'Annex 22 - Market Simulation - Luzon Grid'

Date: [03 Dec 07] [Comments from Local Assessor]

As the Power Purchase & Sale Agreement with the local grid system is under negotiation during the validation procedure and the project proponent has submitted the draft Power Purchase & Sale Agreement and a under taking dated 27 September 2007 regarding metering and calibration of the power.

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Thus it is evident from the draft Power Purchase & Sale Agreement and a under taking of Montalban Methane Power Corporation dated 27 September 2007 that the project activity will be connected to the local Luzon Grid system and Montalban Methane Power Corporation will be responsible of metering of power evacuation to the grid and the periodic calibration of power metering system. This is accepted during ex-ante validation, though the terms and conditions of the signed Power Purchase & Sale Agreement need to be verified during ex-post verification. Thus NIR 30 can be closed out. Date:07-12-2007 [Pankaj Mohan] [Acceptance and close out] NIR 30 closed

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A.4 Annex 4: Statements of Competency

Statement of Competence

Name: Pankaj Mohan SGS Affiliate: SGS India Pvt. Ltd.

Status

- Product Co-ordinator	☐
- Operations Co-ordinator	☐
- Technical Reviewer	☐
- Expert	☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	☒
2. Energy Distribution	☐
3. Energy Demand	☐
4. Manufacturing	☐
5. Chemical Industry	☐
6. Construction	☐
7. Transport	☐
8. Mining/Mineral Production	☐
9. Metal Production	☐
10. Fugitive Emissions from Fuels (solid,oil and gas)	☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
12. Solvent Use	☐
13. Waste Handling and Disposal	☐
14. Afforestation and Reforestation	☐
15. Agriculture	☐

Approved Member of Staff by: Marco van der Linden Date: 03-04-07

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Statement of Competence

Name: Ajoy Gupta SGS Affiliate: SGS India

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☒	☒
- Assessor / Trainee Lead Assessor	☒	☒

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	☒
2. Energy Distribution	☐
3. Energy Demand	☐
4. Manufacturing	☐
5. Chemical Industry	☐
6. Construction	☐
7. Transport	☐
8. Mining/Mineral Production	☐
9. Metal Production	☐
10. Fugitive Emissions from Fuels (solid,oil and gas)	☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
12. Solvent Use	☐
13. Waste Handling and Disposal	☐
14. Afforestation and Reforestation	☐
15. Agriculture	☐

Approved Member of Staff by Siddharth Yadav Date: 21/12/2007

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Statement of Competence

Name: Dr. Jayachandran M Nair SGS Affiliate: SGS India Pvt

Status

- Product Co-ordinator ☐
- Operations Co-ordinator ☐
- Technical Reviewer ☐
- Expert ☒

	Validation	Verification
- Local Assessor	☒	☒
- Lead Assessor	☐	☐
- Assessor / Trainee Lead Assessor	☐	☐

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	☐
2. Energy Distribution	☐
3. Energy Demand	☐
4. Manufacturing	☐
5. Chemical Industry	☐
6. Construction	☐
7. Transport	☐
8. Mining/Mineral Production	☐
9. Metal Production	☐
10. Fugitive Emissions from Fuels (solid,oil and gas)	☐
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	☐
12. Solvent Use	☐
13. Waste Handling and Disposal	☒
14. Afforestation and Reforestation	☐
15. Agriculture	☒

Approved Member of Staff by: Siddharth Yadav Date: 24/10/2007

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