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Validation Report

VALIDATION OF THE CDM-PROJECT:
ENERGETICOS JAREMAR – BIOGAS RECOVERY
FROM PALM OIL MILL EFFLUENT (POME) PONDS,
AND HEAT & ELECTRICITY GENERATION, HONDURAS

REPORT NO. 1030106

2007, December 17

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

Validation of the CDM Project:

Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras.

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Report No.	Date of first issue	Revision No.	Date of this revision	Certificate No.
1030106	2007-12-17	0	-	-

Subject: Validation of a CDM Project			
Accredited TÜV SÜD Unit: TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 - 80686 Munich Federal Republic of Germany		TÜV SÜD Contract Partner: TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 - 80686 Munich Federal Republic of Germany	
Client: OneCarbon B.V. Kanaalweg 16-G NL-3526 KL Utrecht The Netherlands		Project Site(s): Energeticos Jaremar S.A de C.V. San Alejo Village, Tela Community Atlantida Department Honduras	
Project Title: Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras.			
Applied Methodology / Version:		AMS-III.H version 5 AMS-I.C version 11	Scope(s): 13 1
First PDD Version:		Final PDD version:	
Date of issuance: 2007-07-12		Date of issuance: 2007-12-13	
Version No.: 1		Version No.: 2.3	
Starting Date of GSP 2007-07-19			
Estimated Annual Emission Reduction:		30 646 tons CO _{2e}	
Assessment Team Leader: Javier Castro		Further Assessment Team Members: Eric Tolcach	
Summary of the Validation Opinion:			
<input checked="" type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM. Hence TÜV SÜD will recommend the project for registration by the CDM Executive Board in case letters of approval of all Parties involved will be available before the expiring date of the applied methodology(ies) or the applied methodology version respectively.			
<input type="checkbox"/> The review of the project design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence to determine the fulfilment of all stated criteria. Hence TÜV SÜD will not recommend the project for registration by the CDM Executive Board and will inform the project participants and the CDM Executive Board on this decision.			

Abbreviations

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

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1. INTRODUCTION

1.1 Objective

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

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

Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras.

1.2 Scope

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

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

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

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

Validation of the CDM Project:

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

2 METHODOLOGY

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

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

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

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

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

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

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

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

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

2.1 Appointment of the Assessment Team

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

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

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

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

Name	Qualification	Coverage of technical scope	Coverage of sectoral expertise	Host country experience
Javier Castro	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Eric Tolcach	T	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Javier Castro is deputy head of the certification body “Climate and Energy” at TÜV SÜD Industrie Service GmbH. He has an academic background in chemical engineering and energy systems. In his position, he participates as project manager in validation, verification and certification processes for GHG mitigation projects. He has received extensive training in the CDM and JI validation processes, and participated in many validation and verification CDM projects.

Eric Tolcach is biologist and is working as GHG auditor-trainee for TÜV SÜD in Argentina. He is recently involved in several CDM projects activities and is receiving extensive training on all aspects of the Validation and Verification Process. Previously, he was working as auditor in ISO systems and developing environmental audits. For this specific project, as a trainee, he was responsible for developing the documents required.

2.2 Review of Documents

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

2.3 Follow-up Interviews

In the period of July 31st to August 2nd, 2007; TÜV SÜD performed interviews on-site with project stakeholders to confirm selected information and to resolve issues identified in the first document review. The table below provides a list of all persons interviewed in the context of this on-site visit.

Name	Organisation
Carsten Warnecke	OneCarbon
Manuel Flores Calidonio	Energéticos Jaremar
Miguel Gaido	Biotec
Ernesto León Villamizar	Biotec

2.4 Resolution of Clarification and Corrective Action Requests

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

2.5 Internal Quality Control

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

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

3 SUMMARY OF FINDINGS

The proposed project aims to reduce GHG emissions by covering wastewater treatment lagoons, recovering the GHG and using it for heat and electricity generation. In the absence of the project GHG would be released to the air from the exiting wastewater treatment lagoons.

Methodology used by the project includes:

- Methodology AMS.III.H: “Methane recovery in wastewater treatment” version 05; and
- Methodology AMS.I.C: “Thermal energy for the user with or without electricity” version 11.

As previously mentioned, all findings are summarized in Table 2 of the attached validation protocol. In total the assessment team expressed several Clarification Requests and Corrective Action Requests to be solved and/or clarified.

Even though the amount of request for corrective actions to be undertaken are high, many of them are related to submitting further information, the inclusion of clear sources of the information presented and the correction of the format presented in the PDD as required by the corresponding guidance.

Main findings were related to the absence of evidences and sources of information related to the calculation of the Honduran electricity grid emission factor and public sources for demonstration of additionality. Explanation on how project emissions were calculated (i.e.: technical information regarding the equipment to be used), was also an important finding.

Baseline determination is discussed in the PDD stating that the continuation of the current wastewater treatment system with open lagoons and methane emissions to the air is the most likely scenario according to the situation in the country, the same has been confirmed during the validation process. Regarding additionality, in the PDD it is also discussed that no legal requirements are in Honduras that forces project owner for the implementation of such project. Furthermore, the barriers presented describe correctly the current situation allowing the identification of additionality. The information giving regarding the technical barrier has been checked and found acceptable taking into account that no other Palm Oil company used this technology without the help of CDM revenues; as stated in last version of the PDD, page 13. This information has been confirmed during the on-site visit and through further documentation submitted. Therefore based on the documentation presented by the project participants it is possible to confirm that the project is additional.

4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

TÜV SÜD published the project documents on UNFCCC website by installing a link to TÜV SÜD's own website and invited comments by Parties, Stakeholders and Non-Governmental Organisations during a period of 30 days.

The following table presents all key information on this process:

webpage: http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=3441&Ebene1_ID=26&Ebene2_ID=1054&mode=1	
Starting date of the global stakeholder consultation process: 2007-07-18	
Comment submitted by: - No comments were submitted	Issues raised: -
Response by TÜV SÜD: -	

5 VALIDATION OPINION

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

Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras.

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

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

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

Munich, 2007-12-17



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

Munich, 2007-12-17



Assessment Team Leader

Validation of the CDM Project:

Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras.



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Annex 1: Validation Protocol

Validation Protocol

Title: Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras

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Table 1a Protocol related to Methodology AMS III.H version_05.

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of small-scale project activity				
A.1. Title of the small-scale project activity				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?		Yes, the title of the project identifies a unique CDM activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.2. Are there any indication concerning the revision number and the date of the revision?		Yes, the revision number and the date of revision are established in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the project's history?		Yes, according to the information provided the date of the revision is consistent with the time line of the project's history.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2. Description of the small-scale project activity				
A.2.1. Is the description delivering a transparent overview of the project activities?	12	Yes, a transparent overview of the Project is described in the PDD. Nonetheless, it is not clear the reason why the improvement of the wastewater treatment system will remove more organic matter. <u>Clarification Request No. 1.</u> Clarify how the proposed project will reduce more organic matter in the wastewater than the actual process.	CR1	<input checked="" type="checkbox"/>
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	3-4-5-6	Legal and technical documents and information available on site confirm the current situation of the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.3. Is the information provided by these	3-4-	Yes, all information provided in the PDD is in consistence with the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
proofs consistent with the information provided by the PDD?	5-6	information provided by the legal and technical documents and information reviewed during the on site visit.		
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	20	Yes, all information presented in this section is consistent with the information presented in details in further chapters of the PDD. Nevertheless, all the references presented in the PDD should be completed in a transparent manner in order to easily find them. <u>Corrective Action Request No.1.</u> Provide all the references with enough information allowing the possibility to be easily found. Furthermore, provide all data under the International System of Units.	CAR1	<input checked="" type="checkbox"/>
A.2.5. Does the description of the technology to be applied provide sufficient and transparent input to evaluate its impact on the greenhouse gas balance?		Yes, sufficient description is provided in order to evaluate the impact on GHG balance. The recovery of biogas reduces the release of this GHG gas to the air.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.6. Is the brief explanation how the project will reduce greenhouse gas emission transparent and suitable?		Yes, a brief explanation of how it will reduce GHG emissions is presented in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3. Project participants				
A.3.1. Is the form required for the indication of project participants correctly applied?		Yes, the form is correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.2. Is the participation of the listed entities or Parties confirmed by each one of them?		Yes, it is clearly defined.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in par-	20	Yes, the information presented is consistent with the information presented in further chapters. Nevertheless, in this section it is stated that the project owner is Jaremar S.A., while during the on	CAR2	<input checked="" type="checkbox"/>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
ticular annex 1)?		site audit it was reported to be Energeticos Jaremar S.A. <u>Corrective Action Request No.2.</u> It is necessary to change the information provided in this chapter regarding the project owner for the one reported during the on site visit.		
A.4. Technical description of the small-scale project activity				
<i>A.4.1. Location of the small-scale project activity</i>				
A.4.1.1. Does the information provided on the location of the project activity allow for a clear identification of the site(s)?	20	Yes, the location of the Project is clearly identified by the information provided. Nonetheless, the precise location of the site is established in UTM coordinates not allowing the quick identification of the site. <u>Corrective Action Request No.3.</u> Provide the precise coordinates of the site location in GPS data as presented in <i>Figure 2: Location of the project activity</i> of the PDD.	CAR3	<input checked="" type="checkbox"/>
A.4.1.2. How is it ensured and/or demonstrated, that the project proponents can implement the project at this site (ownership, licenses, contracts etc.)?	7	The project proponents can implement the project at this site because they are the owners of the site and during the on site visit it was observed that some construction activities related to the project have already began.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>A.4.2. Type and category(ies) and technology/measure of the small-scale project activity</i>				
A.4.2.1. To which type(s) does the project activity belong to? Is the type correctly identified and indicated?		The project belongs to Type III and Type I. The types are correctly identified and indicated in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A.4.2.2. To which category (ies) does the project activity belong to? Is the category correctly identified and indicated?		The project belongs to “Methane recovery in wastewater treatment” and “Thermal energy for the user with or without electricity”.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.3. Does the technical design of the project activity reflect current good practices?	3	Yes, according the technology used the current good practices are reflected by the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.4. Does the implementation of the project activity require any technology transfer from Annex-I-countries to the host country (ies)?		Yes, the used technology is supplied by the Belgian Company Bio-Tec, which has one representative office in Colombia supplying the clients with expertise and personnel.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.5. Is the technology implemented by the project activity environmentally safe?	7	Yes, the project is considered to be environmentally safe and additional information can be found in section D of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.6. Is the information provided in compliance with actual situation or planning?	12 18 20	<p>Yes, the current situation on site is in compliance with the information provided in further chapters of the PDD. Nevertheless, it is established in the PDD that composting treatment will be one alternative for sludge management while during the on site visit it was reported that this alternative is not planned to be developed.</p> <p>Furthermore, during the on site visit it was reported that the total generation capacity to be installed is going to be of 848 KW while in the PDD is stated a total capacity of 633 KW.</p> <p>The information provided in the PDD has mainly confirmed during the on site visit.</p> <p><u>Corrective Action Request No.4.</u></p> <p>It is necessary to correct the statement regarding the use of the sludge for composting treatment as this is not planned.</p>	CAR4 CAR5 CAR6 CAR7	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		<p><u>Corrective Action Request No.5.</u> Correct also the percentages presented for the composition (percentage of Carbon dioxide and Methane) of the captured biogas.</p> <p><u>Corrective Action Request No.6.</u> Submit the correct information regarding the energy delivered by the HTT boiler.</p> <p><u>Corrective Action Request No.7.</u> Submit information regarding the biogas fuelled generator and provide to the validator the correct information and, if necessary, change the information in the PDD of the total generation capacity to be installed.</p>		
A.4.2.7. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?		Yes, the technology used for the project activity is supposed to have a better performance for the wastewater treatment as it is planned the installation of an internal mixing system and the updated of the existing sludge removal system.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.8. Is the project technology likely to be substituted by other or more efficient technologies within the project period?		No, the project technology would not be substituted by other or a more efficient one.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.9. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?		The project proponent personnel will be trained by Bio-Tec for the operation and maintenance of the technology installed.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.2.10. Is information available on the de-	18	During on site visit no documents regarding the training courses	CAR8	<input checked="" type="checkbox"/>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
mand and requirements for training and maintenance?	20	nor other information and schedule were available for review. <u>Corrective Action Request No.8.</u> All information regarding the necessary training courses that needs be carried out should be provided to the validator or included in the PDD.		
A.4.2.11. Is a schedule available for the implementation of the project and are there any risks for delays?	12	<u>Corrective Action Request No.9.</u> It is necessary to submit a schedule of the implementation of the project or include the same in the PDD.	CAR9	☑
A.4.3. Estimated amount of emission reductions over the chosen crediting period				
A.4.3.1. Is the form required for the indication of projected emission reductions correctly applied?		Yes, the form applied is the one required by the guideline version 04 for completing CDM-SSC-PDD.	☑	☑
A.4.3.2. Are the figures provided consistent with other data presented in the PDD?		Yes, figures presented are consistent with other data in the PDD.	☑	☑
A.4.3.3. Are the figures consistent with the small-scale criteria for the used Type?		Yes, they are consistent for the criteria for Type III of the small-scale methodology used.	☑	☑
A.4.4. Public funding of the small-scale project activity				
A.4.4.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?		According the information obtained during the on site visit, the project does not use any public funding.	☑	☑
A.4.4.2. Is all information provided consis-		NA. Please, see the aforementioned information.	☑	☑

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tent with the details given in remaining chapters of the PDD (in particular annex 2)?														
A.4.5. Confirmation that the small-scale project activity is not a debundled component of a large scale project activity														
A.4.5.1. Is there a registered small-scale CDM project activity or an application to register another small-scale CDM project activity: with the following characteristics:		<table><tr><td>Debundling checklist</td><td>Yes / No</td></tr><tr><td>the same project participants?</td><td>No</td></tr><tr><td>In the same project category and technology/measure?</td><td>Yes</td></tr><tr><td>Registered within previous two years? Or in registration process?</td><td>Yes</td></tr><tr><td>Whose boundary is within 1 km of the project boundary of the small scale project activity under consideration?</td><td>No</td></tr></table>	Debundling checklist	Yes / No	the same project participants?	No	In the same project category and technology/measure?	Yes	Registered within previous two years? Or in registration process?	Yes	Whose boundary is within 1 km of the project boundary of the small scale project activity under consideration?	No	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Debundling checklist	Yes / No													
the same project participants?	No													
In the same project category and technology/measure?	Yes													
Registered within previous two years? Or in registration process?	Yes													
Whose boundary is within 1 km of the project boundary of the small scale project activity under consideration?	No													
A.4.5.2. If the answer to all the above question is 'Yes' then does the total size of the small scale project activity combined with previously registered small scale CDM project activity exceeds the limits of small scale CDM project activities?		This project is not a debundled component of a large scale project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
B. Application of a baseline and monitoring methodology														
B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity														
B.1.1.1.Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?		Yes, the reference number, version number and title of the baseline and monitoring methodology are clearly indicated in this section of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
B.1.1.2.Is the applied version the most recent one and / or is this version still applica-		No, according the information published in the UNFCCC portal by the time of the validation process, the applied version is not the	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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ble?		most recent one (is the previous one than current version). Nonetheless, request for registration under the version applied can be submitted until April 9 th 2008.										
B.2. Justification of the choice of the methodology and why it is applicable to the project activity												
B.2.1. Is the applied methodology considered the most appropriate one?		Yes. The methodology AMS III.H is the only approved small-scale methodology applicable for this project.	☑	☑								
Integrate the required amount of sub-checklists on the applicability criteria as given by the applied methodology and comment on at least every line answered with “No”;												
B.2.1.1.Criterion 1: Project substitutes aerobic wastewater or sludge treatment systems with anaerobic systems with methane recovery and combustion.		N/A	☑	☑								
B.2.1.2.Criterion 2: Project introduces anaerobic sludge treatment system with methane recovery and combustion to an existing wastewater treatment plant without sludge treatment.		N/A	☑	☑								
B.2.1.3.Criterion 3: Project introduces methane recovery and combustion to an existing sludge treatment system.		N/A	☑	☑								
B.2.1.4.Criterion 4: Project introduces methane recovery and combustion to an existing anaerobic wastewater treatment system such as anaerobic reactor, lagoon, septic tank or an on site industrial plant.		<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	☑	☑
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											

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B.2.1.5.Criterion 5: Project introduces anaerobic wastewater treatment with methane recovery and combustion, with or without anaerobic sludge treatment, to an untreated wastewater stream.		N/A	☑	☑								
B.2.1.6.Criterion 6: Project introduces sequential stage of wastewater treatment with methane recovery and combustion, with or without sludge treatment, to an existing wastewater treatment system without methane recovery.		N/A	☑	☑								
B.2.1.7.Are the projected emission reductions less than or equal to 60,000 tonne CO ₂ per annum?		<table><tr><th>Applicability checklist</th><th>Yes / No / NA</th></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	☑	☑
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
B.3. Description of the project boundary												
B.3.1. Does the project boundary include physical, geographical site where the wastewater and sludge treatment takes place?		Yes, the project boundary includes physical and geographical site where the project activities take place.	☑	☑								
B.3.2. Do the spatial and technological		Yes, the spatial and technological boundaries comply with the	☑	☑								

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boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?		information provided in the PDD.		
B.4. Details of baseline and its development				
Integrate questions concerning the determination of the additionality as provided by the methodology applied or insert the module provided when applying the “additionality tool”; Replace blue text, if necessary				
B.4.1. Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?		Yes, the baseline scenarios were identified. The list is complete as all the baseline scenario alternatives consider in the methodology are identified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.2. Does the project identify correctly and excludes those options not in line with regulatory or legal requirements?		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.3. Have applicable regulatory or legal requirements been identified?		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4. Baseline scenario selection:				
B.4.4.1.Scenario 1: the existing aerobic wastewater or sludge treatment system.		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4.2.Scenario 2: the existing sludge disposal system.		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4.3.Scenario 3: the existing sludge disposal system without methane recovery and combustion.		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4.4.Scenario 4: the existing anaerobic			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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wastewater treatment system without methane recovery and combustion.		Baseline scenario checklist	Yes / No / NA			
		Scenario discussed in the PDD?	Yes			
		Compliance provable?	Yes			
		Compliance verified?	Yes			
B.4.4.5.Scenario 5: the untreated wastewater being discharged into sea, river, lake, stagnant sewer or flowing sewer.		N/A			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4.6.Scenario 6: the existing anaerobic wastewater treatment system without methane recovery.		N/A			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.5. Does the selected baseline scenario correspond to the selected project scenario as per section B.2 above?		Yes, the baseline scenario corresponds to the selected project scenario. The current wastewater treatment system installed comprises open lagoons without methane recovery.			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.6. Is the identified baseline scenario in line with regulatory or legal requirements?		Yes, the baseline scenario is in line with regulatory and legal requirements.			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.7. Does the PDD identify the most likely baseline scenario in absence of the project activity?	17	<p>Yes, the most likely baseline scenario is identified according to the methodology. Nevertheless, in baseline scenario it was considered that Agrotor and PALCASA are the only Palm oil mills in Honduras while during the on site visit it was reported that there are more palm oil mills than Agrotor and PALCASA.</p> <p><u>Corrective Action Request No.10.</u></p> <p>It is necessary to provide the correct information regarding the palm oil mills in Honduras for the baseline scenario identification.</p>			CAR10	<input checked="" type="checkbox"/>
B.4.8. Is this identification supported by official and/or verifiable documents (e.g. studies,		NA.			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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web pages, certificates, etc?					
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):					
Integrate questions concerning the determination of the additionality when applying the “additionality tool”; Replace blue text, if necessary					
B.5.1.	In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?		NA, the “additionality tool” has not been used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.2.	In case of Option I (simple cost analysis): Is it demonstrated that the activity produces no economic benefits other than CDM income?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.3.	In case of Option II (investment comparison analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.4.	In case of Option III (benchmark analysis): Is the most suitable financial indicator clearly identified (IRR, NPV, cost benefit ratio, or (levelized) unit cost)?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.5.	In case of Option II or Option III: Is the calculation of financial figures for this indicator correctly done for all alternatives and the project activity?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.6.	In case of Option II or Option III: Is the analysis presented in a transparent man-		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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	ner including publicly available proofs for the utilized data?				
B.5.7.	In case of applying step 3 (barrier analysis) of the additionality tool: Is a complete list of barriers developed that prevent the different alternatives to occur?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.8.	In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.9.	In case of applying step 3 (barrier analysis): Is it transparently shown that the execution of at least one of the alternatives is not prevented by the identified barriers?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.10.	Have other activities in the host country / region similar to the project activity been identified and are these activities appropriately analyzed by the PDD (step 4a)?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.11.	If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5.12.	Is it appropriately explained how the approval of the project activity will help to overcome the economic and financial hur-		NA, see comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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dles or other identified barriers (step 5)?																			
If the additionality tool has not been used please answer B.5.13 to B.5.18																			
B.5.13. If the starting date of the project activity is before the date of validation, is evidence available to prove that incentive from the CDM was seriously considered in the decision to proceed with the project activity?		The starting date of the project activity is in accordance with the validation date.	See CAR 9	<input checked="" type="checkbox"/>															
B.5.14. Is a complete list of barriers developed that prevents the project activity to occur?		Yes, a list of the barriers that prevents the occurrence of the project activity is presented in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>															
B.5.15. Does this list include at least one of the following barriers?	17	<table><tr><th>Barrier</th><th>Discussed?</th><th>Verifiable?</th></tr><tr><td>Investment</td><td>No</td><td>NA</td></tr><tr><td>Technological</td><td>Yes</td><td>Yes</td></tr><tr><td>Due to prevailing practice</td><td>Yes</td><td>No</td></tr><tr><td>Other</td><td>Yes</td><td>No</td></tr></table> <p><u>Corrective Action Request No.11.</u> All barriers presented in the PDD should demonstrate their effect on the project and should be supported by public documents.</p>	Barrier	Discussed?	Verifiable?	Investment	No	NA	Technological	Yes	Yes	Due to prevailing practice	Yes	No	Other	Yes	No	CAR11	<input checked="" type="checkbox"/>
Barrier	Discussed?	Verifiable?																	
Investment	No	NA																	
Technological	Yes	Yes																	
Due to prevailing practice	Yes	No																	
Other	Yes	No																	
B.5.16. Does the discussion sufficiently take into account relevant national and/or sectoral policies?	17	See Corrective Action Request No.11.	Open	<input checked="" type="checkbox"/>															
B.5.17. Is transparent and documented evidence provided on the existence and significance of these barriers?	17	See Corrective Action Request No.11.	Open	<input checked="" type="checkbox"/>															

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B.5.18. Is it appropriately explained how the approval of the project activity will help to overcome the identified barriers?	17	See Corrective Action Request No.11.	Open	<input checked="" type="checkbox"/>
B.6. Emissions reductions				
<i>B.6.1. Explanation of methodological choices</i>				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?		Yes, it is explained how the methodology is applied by the project activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.2. Is every selection of options offered by the methodology correctly justified and is this justification in line with the situation verified on-site?		Yes, the use of methodology III.H was correctly used and verified during the on site visit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.3. Determination of project emissions (Comment on any line answered "No")				
B.6.1.3.1. Component 1: emissions from electricity or diesel consumption.		Project emission checklist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Component discussed in the PDD?		
		Formulae correctly applied?		
B.6.1.3.2. Component 2: emissions from degradable organic carbon in treated wastewater.		Project emission checklist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Component discussed in the PDD?		
		Formulae correctly applied?		
B.6.1.3.3. Component 3: emissions from anaerobic decay of final sludge.		Project emission checklist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Component discussed in the PDD?		
		Formulae correctly applied?		

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		The sludge will be used as fertilizer in the surrounding lands and no GHG emissions will be generated.								
B.6.1.3.4. Component 4: emissions from methane release in capture and flare systems.		<table><tr><td>Project emission checklist</td><td>Yes / No</td></tr><tr><td>Component discussed in the PDD?</td><td>Yes</td></tr><tr><td>Formulae correctly applied?</td><td>Yes</td></tr></table>	Project emission checklist	Yes / No	Component discussed in the PDD?	Yes	Formulae correctly applied?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No									
Component discussed in the PDD?	Yes									
Formulae correctly applied?	Yes									
B.6.1.3.5. Component 5: emissions from dissolved methane in treated wastewater.		<table><tr><td>Project emission checklist</td><td>Yes / No</td></tr><tr><td>Component discussed in the PDD?</td><td>Yes</td></tr><tr><td>Formulae correctly applied?</td><td>Yes</td></tr></table>	Project emission checklist	Yes / No	Component discussed in the PDD?	Yes	Formulae correctly applied?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No									
Component discussed in the PDD?	Yes									
Formulae correctly applied?	Yes									
B.6.1.4.Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		Yes, the formulae describe in the PDD are correctly presented as mentioned in methodology AMS III.H version 05.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
B.6.1.5.Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		NA, as leakage emissions have not been taken into account since the used technology is not transferred from another activity.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
B.6.1.6.Are the formulae required for the determination of emission reductions correctly presented?		Yes, formulae required for the determination of emission reductions are correctly presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
B.6.2. Data and parameters that are available at validation										
B.6.2.1.Is the list of parameters presented in chapter B.6.2 considered to be complete		Yes, there is a complete list of parameters in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

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with regard to the requirements of the applied methodology?																						
B.6.2.2.Comment on any line answered with “No”																						
B.6.2.2.1. Parameter Title: PE _{y,power} emissions from electricity or diesel consumption in the year “y”	16 18	<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table> <p><u>Corrective Action Request No.12.</u> Correct the value provided in parameter ID6 of the PDD for the Build Margin.</p> <p><u>Corrective Action Request No.13.</u> Provide the correct value of parameter ID9 of the PDD considering all the energy consumption.</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	CAR12 CAR13	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
B.6.2.2.2. Parameter Title: Q _{y,ww} volume of wastewater treated in the year “y” (m3)		<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					

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		<table><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>		Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes										
Source clearly referenced?	Yes																						
Correct value provided?	Yes																						
Has this value been verified?	Yes																						
Choice of data correctly justified?	Yes																						
Measurement method correctly described?	Yes																						
B.6.2.2.3. Parameter Title: COD _{y,ww,treated} — chemical oxygen demand of treated wastewater (tonnes/m3).		<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>This parameter does not apply since project emission consist from “Methane fugitive emissions on account of inefficiencies in capture and flare system”</p>		Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.2.4. Parameter Title: B _{o,ww} methane producing capacity of the wastewater (IPCC default value for domestic wastewater of	20	<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr></table>		Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Open	<input checked="" type="checkbox"/>												
Data Checklist	Yes / No / NA																						
Title in line with methodology?	Yes																						
Data unit correctly expressed?	Yes																						

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD																		
0.21 kg CH4/kg.COD)		<table><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	Appropriate description of parameter?	Yes	Source clearly referenced?	No	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes									
Appropriate description of parameter?	Yes																						
Source clearly referenced?	No																						
Correct value provided?	Yes																						
Has this value been verified?	Yes																						
Choice of data correctly justified?	Yes																						
Measurement method correctly described?	Yes																						
		It is not specified which revision of the IPCC has been used. See Corrective Action Request No.1.																					
B.6.2.2.5. Parameter Title: MCF _{ww,final} methane correction factor based on type of treatment and discharge pathway of the wastewater (fraction) (MCF Higher Value in table III.H.1 for sea, river and lake discharge i.e. 0.2)		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>This parameter does not apply since project emission consist from “Methane fugitive emissions on account of inefficiencies in capture and flare system”</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA		☑	☑
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.2.6. Parameter Title: S _{y,final} — amount of final sludge generated by the wastewater treatment		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	NA		☑	☑														
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						

Table 1a is applicable to AMS III.H version 05

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(tonnes).		<table><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>The sludge will be used as fertilizer, thus no GHG emission will be generated.</p>	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA							
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.2.7. Parameter Title: DOC _{y,s,final} – degradable organic content of the final sludge generated by the wastewater treatment.		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> <p>See comment above.</p>	Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA		☑	☑
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.2.8. Parameter Title: MCF _{s,final} – methane correction factor of the landfill that receives the final sludge.		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA		☑	☑												
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						

Table 1a is applicable to AMS III.H version 05

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		<table><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> See comment above.		Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA								
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.2.9. Parameter Title: DOC _F – fraction of DOC dissimi- lated to biogas.		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> See comment above.		Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						
Choice of data correctly justified?	NA																						
Measurement method correctly described?	NA																						
B.6.2.2.10. Parameter Title: F– fraction of CH ₄ in landfill gas.		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr></table>		Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						

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		Has this value been verified?	NA																				
		Choice of data correctly justified?	NA																				
		Measurement method correctly described?	NA																				
		See comment above.																					
B.6.2.2.11.Parameter Title: COD _{y,ww,untreated} Chemical oxygen demand of the wastewater entering the anaerobic treatment reactor/system with methane capture in the year “y” (tonnes/m3)	12	<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes.</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table> <p><u>Corrective Action Request No.14.</u></p> <p>It is necessary to submit clear sources and calculations of the values given in the PDD.</p>		Data Checklist	Yes / No / NA	Title in line with methodology?	Yes.	Data unit correctly expressed?	No	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	CAR14	☑
Data Checklist	Yes / No / NA																						
Title in line with methodology?	Yes.																						
Data unit correctly expressed?	No																						
Appropriate description of parameter?	Yes																						
Source clearly referenced?	Yes																						
Correct value provided?	No																						
Has this value been verified?	No																						
Choice of data correctly justified?	Yes																						
Measurement method correctly described?	Yes																						
B.6.2.2.12.Parameter Title: MCF _{s,treatment} methane correction factor for the sludge treatment system that will be equipped with methane recovery and combustion (MCF Higher value of 1.0 as per table III.H.1		<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr></table>		Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	☑	☑				
Data Checklist	Yes / No / NA																						
Title in line with methodology?	NA																						
Data unit correctly expressed?	NA																						
Appropriate description of parameter?	NA																						
Source clearly referenced?	NA																						
Correct value provided?	NA																						
Has this value been verified?	NA																						

Table 1a is applicable to AMS III.H version 05

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		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		See comment above.			
B.6.2.2.13.Parameter Title: S _{y,untreated} amount of untreated sludge generated in the year “y” (tonnes)				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist	Yes / No / NA		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		See comment above.			
B.6.2.2.14.Parameter Title: DOC _{y,s,untreated} Degradable organic content of the untreated sludge generated in the year y (fraction). It shall be measured by sampling and analysis of the sludge produced, and estimated ex-ante using the IPCC default values of 0.05 for domestic sludge (wet basis, considering a default dry matter content of 10 percent) or 0.09 for industrial sludge (wet basis, assuming dry matter content of 35				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Data Checklist	Yes / No / NA		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		See comment above.			

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percent)																						
B.6.2.2.15.Parameter Title: MCF _{s,treatment} methane correction factor for the sludge treatment system that will be equipped with methane recovery and combustion (MCF Higher value of 1.0 as per table III.H.1)		<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> See comment above.	Data Checklist	Yes / No / NA	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					
Appropriate description of parameter?	NA																					
Source clearly referenced?	NA																					
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					
B.6.2.2.16.Parameter Title: [CH4] _{y,ww,treated} dissolved methane content in the treated wastewater (tonnes/m3). In aerobic wastewater treatment default value is zero, in anaerobic treatment it can be measured, or a default value of 10e-4 tonnes/m3 can be used	20	<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided?</td><td>?</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table> See Corrective Action Request No.1.	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	No	Correct value provided?	?	Has this value been verified?	No	Choice of data correctly justified?	Yes	Measurement method correctly described?	NA	Open	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	No																					
Correct value provided?	?																					
Has this value been verified?	No																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	NA																					
B.6.2.2.17.Parameter Title: BE _{y,power} emissions on account of		<table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr></table>	Data Checklist	Yes / No / NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																
Data Checklist	Yes / No / NA																					

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electricity or diesel consumed in the year “y” by the replaced aerobic wastewater or sludge treatment system		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		This value does not apply since choice 6 (iv) from methodology has been used.			
B.6.2.2.18.Parameter Title: MCF _{ww,treatment} Methane correction factor for the existing wastewater treatment system to which the sequential anaerobic treatment step is being introduced (MCF lower value in Table III.H.1.)		Data Checklist	Yes / No / NA	☑	☑
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided?	NA		
		Has this value been verified?	NA		
		Choice of data correctly justified?	NA		
		Measurement method correctly described?	NA		
		See comment above.			
B.6.3. Ex-ante calculation of emission reductions					
B.6.3.1.Is the projection based on the same procedures as used for future monitoring?		No, the projection and the future monitoring do not use the same procedure.		☑	☑
B.6.3.2.Are the GHG calculations documented	12	Generally, yes. Nonetheless, some values presented in the PDD		CAR15	☑

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in a complete and transparent manner?	14 16 19 20	and the way to obtain them is not clear. <u>Corrective Action Request No.15.</u> Submit all necessary information in order to demonstrate the way used to obtain the values presented. Please, also see Corrective Action Request No.1 for the values presented in the PDD. <u>Corrective Action Request No.16.</u> It is necessary to discount the baseline energy consumption in emission reduction calculation. <u>Clarification Request No. 2.</u> Clarify the source used for the value obtained for parameter D_{CH_4} presented in the PDD and value NCV_b .	CAR16 CR2	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
B.6.3.3.If there is more than one component of the project activity, then are emission reduction calculations provided separately for each component?		Only one component is presented in the project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3.4.Is the data provided in this section consistent with data as presented in other chapters of the PDD?		Yes, data presented in this section is consistent with information provided in other chapters of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4. Summary of the ex-ante estimation of emission reductions				
B.6.4.1.Will the project result in fewer GHG emissions than the baseline scenario?		Yes, the activities involved in the proposed project will generate fewer emissions than in baseline scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	20	No, the table presented in this section does not match with the required format established in the guidelines for completing CDM-SSC-PDD version 04. <u>Corrective Action Request No.17.</u> Provide the table as required by the guideline version 04 for completing CDM-SSC-PDD.	CAR17	<input checked="" type="checkbox"/>
B.6.4.3. If the project activity involves more than one component, is separate table included for each of the component.		No, the project only involves one component.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.4. Do these values comply with small-scale criteria for every year?		Yes, all values presented corresponded with the small scale criteria .The total emission reductions are less than 60 000 tCO ₂ e per year.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.5. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?		Yes, the projection is in line with the envisioned schedule of the project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.6. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?		Yes, the data presented in the current section is in consistence with the data presented in the rest of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7. Application of the monitoring methodology and description of the monitoring plan				
<i>B.7.1. Data and parameters monitored</i>				
B.7.1.1. Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	9 18 20	No, the list of parameters is not complete. No parameter for the quantity of bunker that potentially would be used is presented.	CAR18 CAR19	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>

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		<p>Furthermore, the decision on the EB23 paragraph 24 should be taken into account.</p> <p>See also Corrective Action Request No.1.</p> <p><u>Corrective Action Request No.18.</u> Provide the parameter for the quantity of bunker that potentially would be used in the project.</p> <p><u>Corrective Action Request No.19.</u> It is necessary to include for all the parameters the requirements presented in the decision on the EB 23 paragraph 24 (<i>"The Board considered recommendations by the Meth Panel and agreed that the specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures to be used for various parameters and variables should be identified in the PDD, along with detailed quality assurance and quality control procedures. In addition standards recommended shall either be national or international standards. The verification of the authenticity of the uncertainty levels and instruments are to be undertaken by the DOE during the verification stage"</i>).</p>		
B.7.1.2.Comment on any line answered with "No"				
B.7.1.2.1. Parameter Title: Q _{y,ww} -volume of wastewater treated (m ³).		<p>NA.</p> <p>No need to monitor this parameter as case (iv) of the methodology has been used.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.7.1.2.2. Parameter Title: $S_{y,untreated}$ -amount of untreated sludge generated (tonnes).		NA. The produced sludge will be used as fertilizer. Thus the sludge treatment is not considered for the calculation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.2.3. Parameter Title: $S_{y,final}$ -amount of final sludge generated by wastewater treatment (tonnes).		NA. See comments on previous items.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.2.4. Parameter Title: $COD_{y,ww,untreated}$ -chemical oxygen demand of the wastewater entering the anaerobic treatment reactor/system with methane capture (tonnes/m ³).		NA. See comments on previous items.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.2.5. Parameter Title: $COD_{y,ww,treated}$ -chemical oxygen demand of the treated wastewater (tonnes/m ³).		NA. See comments on previous items.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.2.6. Parameter Title: $DOC_{y,s,untreated}$ -degradable organic content of the untreated sludge generated (tonnes/m ³).		NA. See comments on previous items.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.2.7. Parameter Title: $DOC_{y,s,final}$ - degradable organic content of the final sludge generated by the wastewater treatment.		NA. See comments on previous items.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD																								
B.7.1.2.8. Parameter Title: (CH4) _{y,ww,treated} — dissolved methane content in the treated wastewater (tones/m ³).		NA. See comment above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								
B.7.1.2.9. Parameter Title: Amount of biogas recovered (m ³).	20	<table border="1"><thead><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></tbody></table> <p>No measurement of the total biogas recovered has been presented as a total value, but every biogas line is going to be measured. Nevertheless the methodology required the measurement of the methane recovered, combusted and flared.</p> <p><u>Corrective Action Request No.20.</u> Include the parameter for the measurement of the total amount of biogas recovered.</p>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR20	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
B.7.1.2.10. Parameter Title:			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								

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Methane fraction of biogas.		Monitoring Checklist	Yes / No		
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	Yes		
		Correct value provided for estimation?	Yes		
		Has this value been verified?	Yes		
		Measurement method correctly described?	Yes		
		Correct reference to standards?	Yes		
		Indication of accuracy provided?	Yes		
		QA/QC procedures described?	Yes		
		QA/QC procedures appropriate?	Yes		
B.7.1.2.11. Parameter Title: Temperature of biogas (°C).		Monitoring Checklist	Yes / No	☑	☑
		Title in line with methodology?	N/A		
		Data unit correctly expressed?	N/A		
		Appropriate description of parameter?	N/A		
		Source clearly referenced?	N/A		
		Correct value provided for estimation?	N/A		
		Has this value been verified?	N/A		
		Measurement method correctly described?	N/A		
		Correct reference to standards?	N/A		
		Indication of accuracy provided?	N/A		
		QA/QC procedures described?	N/A		
		QA/QC procedures appropriate?	N/A		

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD																								
		The project will use mass-flow-meter therefore this parameter is not necessary																										
B.7.1.2.12.Parameter Title: Pressure of biogas (kg/cm ²).		<table border="1"><thead><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>N/A</td></tr><tr><td>Data unit correctly expressed?</td><td>N/A</td></tr><tr><td>Appropriate description of parameter?</td><td>N/A</td></tr><tr><td>Source clearly referenced?</td><td>N/A</td></tr><tr><td>Correct value provided for estimation?</td><td>N/A</td></tr><tr><td>Has this value been verified?</td><td>N/A</td></tr><tr><td>Measurement method correctly described?</td><td>N/A</td></tr><tr><td>Correct reference to standards?</td><td>N/A</td></tr><tr><td>Indication of accuracy provided?</td><td>N/A</td></tr><tr><td>QA/QC procedures described?</td><td>N/A</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr></tbody></table> <p>The project will use mass-flow-meter therefore this parameter is not necessary</p>	Monitoring Checklist	Yes / No	Title in line with methodology?	N/A	Data unit correctly expressed?	N/A	Appropriate description of parameter?	N/A	Source clearly referenced?	N/A	Correct value provided for estimation?	N/A	Has this value been verified?	N/A	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	N/A																											
Data unit correctly expressed?	N/A																											
Appropriate description of parameter?	N/A																											
Source clearly referenced?	N/A																											
Correct value provided for estimation?	N/A																											
Has this value been verified?	N/A																											
Measurement method correctly described?	N/A																											
Correct reference to standards?	N/A																											
Indication of accuracy provided?	N/A																											
QA/QC procedures described?	N/A																											
QA/QC procedures appropriate?	N/A																											
B.7.1.2.13.Parameter Title: Temperature in exhaust gas of flare (°C).		<table border="1"><thead><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr></thead><tbody><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr></tbody></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	Yes																											
Has this value been verified?	Yes																											

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD																								
		Measurement method correctly described?	Yes																										
		Correct reference to standards?	Yes																										
		Indication of accuracy provided?	Yes																										
		QA/QC procedures described?	Yes																										
		QA/QC procedures appropriate?	Yes																										
B.7.1.2.14.Parameter Title: biogas flow rate		<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>Yes</td></tr><tr><td>QA/QC procedures described?</td><td>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes	☑	☑
Monitoring Checklist	Yes / No																												
Title in line with methodology?	Yes																												
Data unit correctly expressed?	Yes																												
Appropriate description of parameter?	Yes																												
Source clearly referenced?	Yes																												
Correct value provided for estimation?	Yes																												
Has this value been verified?	Yes																												
Measurement method correctly described?	Yes																												
Correct reference to standards?	Yes																												
Indication of accuracy provided?	Yes																												
QA/QC procedures described?	Yes																												
QA/QC procedures appropriate?	Yes																												
B.7.1.2.15.Parameter Title: End use of final sludge generated.		<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	☑	☑																		
Monitoring Checklist	Yes / No																												
Title in line with methodology?	Yes																												
Data unit correctly expressed?	Yes																												

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD																								
		<table><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>Yes</td></tr><tr><td>QA/QC procedures described?</td><td>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table>		Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes								
Appropriate description of parameter?	Yes																												
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Measurement method correctly described?	Yes																												
Correct reference to standards?	Yes																												
Indication of accuracy provided?	Yes																												
QA/QC procedures described?	Yes																												
QA/QC procedures appropriate?	Yes																												
B.7.1.2.16.Parameter Title: Volumetric fraction of oxygen in the exhaust gas of the flare.	9 18	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> <p>As an open flare is used, no need to measure volumetric fraction of oxygen is need. Consequently, a 50% flare efficiency should be considered.</p>		Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	CAR21	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	No																												
Data unit correctly expressed?	No																												
Appropriate description of parameter?	No																												
Source clearly referenced?	No																												
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		<u>Corrective Action Request No.21.</u> Correct the value provided in ID13 of the PDD of 0.9% for the capture and flare efficiency.																										
B.7.1.2.17.Parameter Title: Concentration of methane in the exhaust gas of flare on dry basis and at Normal Temperature and Pressure (NTP).		<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table> See previous comments.	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Correct value provided for estimation?	No	Has this value been verified?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	See CAR21	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
Data unit correctly expressed?	No																											
Appropriate description of parameter?	No																											
Source clearly referenced?	No																											
Correct value provided for estimation?	No																											
Has this value been verified?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
B.7.2. Description of the monitoring plan																												
B.7.2.1.Is the operational and management structure clearly described and in compliance with the envisioned situation?	20	No, the operational and management structure and responsibilities are not clearly described in the PDD. Furthermore, according to the information provided during the on site visit, boiler 1 would fed the refinery and not the palm oil mill as stated in the PDD.	CAR22 CAR23	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>																								

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		<p><u>Corrective Action Request No.22.</u> Provide more information regarding the operational and management structure and responsibilities in the PDD.</p> <p><u>Corrective Action Request No.23.</u> It is necessary to change information in the graph presented in the PDD where it is stated that boiler 1 would fed to palm oil mill instead of refinery.</p>		
B.7.2.2.Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	20	<p>No, Information regarding data collection and archiving are not clearly defined.</p> <p>See Corrective Action Request No.22.</p>	Open	<input checked="" type="checkbox"/>
B.7.2.3.Does the monitoring plan provide current good monitoring practice?	20	<p>No additional information regarding the monitoring plan has been included in the PDD.</p> <p><u>Corrective Action Request No.24.</u> According the requirements of the guideline version 04 for completing CDM-SSC-PDD, the process to be applied for the monitoring should be included in this chapter.</p>	CAR24	<input checked="" type="checkbox"/>
B.7.2.4.If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	20	<p>No Annex 4 is provided.</p> <p>See Corrective Action Request No.24.</p>	Open	<input checked="" type="checkbox"/>

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B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)				
B.8.1.1.Is there any indication of a date when the baseline was determined?		Yes, the completion date for the baseline is clearly indicated.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.2.Has dd/mm/yyyy format been used to indicate the date.		Yes, the correct format has been used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.3.Is this consistent with the time line of the PDD history?		Yes, it is consistent with the time line of the PDD history.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.4.Is the information on the person(s) / entity (ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?		Yes, clear information regarding the responsible for the application of the baseline and monitoring methodology is provided.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.5.Is information provided whether this person / entity is also considered a project participant?	20	No, there is no information whether this responsible is project participant or not. <u>Corrective Action Request No.25.</u> It is necessary to specified if the person/entity is project participant or not.	CAR25	<input checked="" type="checkbox"/>
C. Duration of the project activity / crediting period				
C.1. Duration of the project activity				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reason-		Yes, it is clearly defined and is reasonable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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able?				
C.2. Choice of the crediting period and related information				
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?		Yes, a renewable crediting period has been established with a length of 7 years for the first crediting period.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
C.2.2. Has dd/mm/yyyy format been used to indicate the start date of the crediting period.		Yes the date format is correctly used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D. Environmental impacts				
D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts				
D.1.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved? If yes answer also D.1.2 to D.1.4	20	Yes, an environmental qualitative diagnostic has been conducted. Nevertheless, in the PDD is mentioned that an Environmental Impact Assessment has been developed. <u>Corrective Action Request No.26.</u> Change the reference of Environmental Impact Assessment for Environmental Qualitative Diagnostic since this last one has been developed.	CAR26	<input checked="" type="checkbox"/>
D.1.2. Has the analysis of the environmental impacts of the project activity been sufficiently described?		Yes, the analysis of the environmental impacts of the project activity has been clearly defined.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.3. Will the project create any adverse environmental effects?		No negative environmental impacts will be generated by the pro-	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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		ject activity.		
D.1.4. Were transboundary environmental impacts identified in the analysis?		No transboundary impacts were identified in the Environmental Impact Analysis.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party				
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?		Yes, the environmental impacts (during the construction phase) have been addressed in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.2. Does the project comply with environmental legislation in the host country?		Yes, the project complies with local and national legislation. Energeticos Jaremar obtained from the corresponding license from the environmental national authority (Environmental License No. 047-2007).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E. Stakeholders' comments				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.1.1. Have relevant stakeholders been consulted?	12	Yes, relevant stakeholders were invited. Nevertheless, no information regarding other stakeholders is included. <u>Clarification Request No. 3.</u> Clarify which other stakeholders were invited to the meeting.	CR3	<input checked="" type="checkbox"/>
E.1.2. Have appropriate media been used to invite comments by local stakeholders?		Yes, personal invitations and newspaper advertisements were used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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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?		Voluntary process was used for the stakeholder's consultation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?		Yes, the stakeholder's consultation is clearly presented in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.2. Summary of the comments received				
E.2.1. Is a summary of the received stakeholder comments provided?		Yes, it is provided in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.3. Report on how due account was taken of any comments received				
E.3.1. Has due account been taken of any stakeholder comments received?		No negative comments were received so no actions were undertaken.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F. Annexes 1 – 4				
F.1. Annex 1: Contact Information				
F.1.1. Is the information provided consistent with the one given under section A.3?	20	No, the data presented is not consistent with the data presented in other sections of the PDD. The organization name is not fully completed. <u>Corrective Action Request No.27.</u> Provide the full organization name.	CAR27	<input checked="" type="checkbox"/>
F.1.2. Is the information on all private participants and directly involved Parties pre-		Yes, all the information is presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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sented?				
F.2. Annex 2: Information regarding public funding				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?		NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?		NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.3. Annex 3: Baseline information				
F.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PDD?		Yes, the information provided in this annex is consistent with the information provided in other chapters of the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	18 20	<p>No, some data were not possible to be verified during the on site visit. Furthermore, it is mentioned in this annex that a minor adjustment for the methodology ACM0002 used for the grid emission factor estimation has been developed.</p> <p>See Corrective Action Request No.14.</p> <p><u>Corrective Action Request No.28.</u></p> <p>Any adjustment of the methodology needs an approval of the EB through request of deviation or revision. Confirm how you want to</p>	CAR28	<input checked="" type="checkbox"/>

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		approach this minor adjustment mentioned in the PDD.		
F.3.3. Does the additional information substantiate / support statements given in other sections of the PDD?		Yes, all information provided is consistent with the information presented in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4. Annex 4: Monitoring information				
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	20	No Annex 4 is provided in the PDD. See Corrective Action Request No.24.	Open	<input checked="" type="checkbox"/>
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	20	No Annex 4 is provided in the PDD. See Corrective Action Request No.24.	Open	<input checked="" type="checkbox"/>
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	20	No Annex 4 is provided in the PDD. See Corrective Action Request No.24.	Open	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
A. General description of small-scale project activity				
A.1. Title of the small-scale project activity				
A.2. Description of the small-scale project activity				
A.3. Project participants				
A.4. Technical description of the small-scale project activity				
A.4.1. Location of the small-scale project activity				
A.4.2. Type and category(ies) and technology/measure of the small-scale project activity				
A.4.3. Estimated amount of emission reductions over the chosen crediting period				
A.4.4. Public funding of the small-scale project activity				
A.4.5. Confirmation that the small-scale project activity is not a debundled component of a large scale project activity				
B. Application of a baseline and monitoring methodology				
B.1. Title and reference of the approved baseline and monitoring methodology applied to the small-scale project activity				
B.2. Justification of the choice of the project category				
B.2.1. Is the applied methodology considered the most appropriate one?		Yes, the methodology AMS I.C is the only approved small scale methodology applicable for this project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Integrate the required amount of sub-checklists on the applicability criteria as given by the applied methodology and comment on at least every line answered with "No";				

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD								
B.2.1.1.Criterion 1: Project comprises renewable energy technologies that supply individual households or users with thermal energy that displaces fossil fuels. Biomass based cogeneration systems that produce heat and electricity are included.		<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
B.2.1.2.Criterion 2: Where thermal generation capacity is specified by the manufacturer, it shall be less than 45MW.		<table><tr><td>Applicability checklist</td><td>Yes / No / NA</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No / NA	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No / NA											
Criterion discussed in the PDD?	Yes											
Compliance provable?	Yes											
Compliance verified?	Yes											
B.2.1.3.Criterion 3: For co-fired systems the aggregate installed capacity (specified for fossil fuel use) of all systems affected by the project activity shall not exceed 45MWth.		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
B.2.1.4.Criterion 4: Cogeneration projects that displace/avoid fossil fuel consumption in the production of thermal energy (e.g. steam or process heat) and/or electricity shall use this methodology. The capacity of the project in this case shall be the thermal energy production capacity, i.e.		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

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45MWth.				
B.2.1.5.Criterion 5: In the case of project activities that involve the addition of renewable energy units at an existing renewable energy facility, the total capacity of the units added by the project should be lower than 45 MWth and should be physically distinct from the existing units.		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.3. Description of the project boundary				
B.4. Description of baseline and its development				
Integrate questions concerning the determination of the additionality as provided by the methodology applied or insert the module provided when applying the “additionality tool”;				
B.4.1. For renewable energy technologies that displace technologies using fossil fuels, the simplified baseline is the fuel consumption of the technologies that would have been used in the absence of the project activity times an emission coefficient for the fossil fuel displaced. IPCC default values for emission coefficients may be used. Is this the case in this project activity, and if yes, has this baseline been identified correctly? (For cogen projects, see B.4.2.)		Yes, this is the case of the project activity and the baseline has been correctly identified. IPCC default values for emission coefficients have been used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.2. Cogeneration projects shall use one of the four options given in point 8 of AMS I.C. version 10 for baseline emission calculations depending on technology that would have been used to produce thermal energy and electricity		NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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in the absence of the project activity. Is this a cogeneration project, and if yes, has the correct option been chosen?				
B.4.3. In the case of project activities that involves the addition of renewable energy units at an existing renewable energy production facility, where the existing and new units share the use of common and limited renewable resources (e.g. biomass residues), the potential for the project activity to reduce the amount of renewable resource available to, and thus thermal energy production by, existing units must be considered in the determination of baseline emissions, project emissions, and/or leakage, as relevant. Is this the case in this project activity, and if yes, has it been considered?		NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.4. For project activities that retrofit or modify an existing facility for renewable generation, has the correct baseline scenario been chosen as per the methodology?		NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.5. Have all technically feasible baseline scenario alternatives to the project activity been identified and discussed by the PDD? Why can this list be considered as being complete?		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.6. Does project identify correctly and excludes those options not in line with regulatory or legal requirements?		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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B.4.7. Have applicable regulatory or legal requirements been identified?		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.8. Does the PDD identify the most likely baseline scenario in absence of the project activity?	18	<p>Yes, the most likely baseline scenario in absence of the project activity is identified in the PDD.</p> <p>Nevertheless, it is not mentioned that there are two biomass fired turbines currently in use.</p> <p><u>Corrective Action Request No.29.</u></p> <p>It is necessary to include a brief information of the two turbines currently use on site.</p>	CAR29	<input checked="" type="checkbox"/>
B.4.9. Is this identification supported by official and/or verifiable documents (e.g. studies, web pages, certificates, etc)?		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.10. Is the identified baseline scenario in line with regulatory or legal requirements?		Yes, the baseline scenario is in line with regulatory and legal requirements.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered small-scale CDM project activity:				
B.6. Emissions reductions				
<i>B.6.1. Explanation of methodological choices</i>				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?		Yes, it is explained how the project applies the procedures provided by the methodology.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.1.2. Is every selection of options offered by		Yes, the use of methodology I.C is correctly applied and it was	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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the methodology correctly justified and is this justification in line with the situation verified on-site?		verified on site.								
B.6.1.3.Determination of project emissions (Comment on any line answered “No”)										
B.6.1.3.1. Component 1: emissions from-project activity		<table><tr><td>Project emission checklist</td><td>Yes / No</td></tr><tr><td>Component discussed in the PDD?</td><td>Yes</td></tr><tr><td>Formulae correctly applied?</td><td>Yes</td></tr></table>	Project emission checklist	Yes / No	Component discussed in the PDD?	Yes	Formulae correctly applied?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Project emission checklist	Yes / No									
Component discussed in the PDD?	Yes									
Formulae correctly applied?	Yes									
B.6.1.4.Are the formulae required for the determination of baseline emissions correctly presented, enabling a complete identification of parameters to be used and / or monitored?	18	Yes, nonetheless the parameter “EC _y ” presented in the PDD (ID9) should include all the energy consumption. <u>Corrective Action Request No.30.</u> Provide a value including all the energy consumption for parameter “EC _y ” (ID9) presented in the PDD.	CAR30	<input checked="" type="checkbox"/>						
B.6.1.5.Are the formulae required for the determination of leakage emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?		NA, leakage emission has not been taken into consideration.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
B.6.1.6.Are the formulae required for the determination of emission reductions correctly presented?		Yes, all formulae are corrected presented.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						

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B.6.2. Data and parameters that are available at validation																						
B.6.2.1.Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?		Yes, the list of parameters is complete.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
B.6.2.2.Comment on any line answered with “No”																						
B.6.2.2.1. Parameter Title: Demonstration that the quantity of available biomass in the region, is at least 25% larger than the quantity of biomass that is utilised including the project activity		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		
B.6.2.2.2. Parameter Title: the CO2 emission factor per unit of energy of the fuel that would have been used in the baseline (cogeneration) plant in (tCO2 / TJ), obtained from reliable local or national data if available, otherwise, IPCC default emission factors are used.		<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No / NA	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No / NA																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
B.6.2.2.3. Parameter Title: the efficiency of the plant using	8 12	<table><tr><td>Data Checklist</td><td>Yes / No / NA</td></tr></table>	Data Checklist	Yes / No / NA	CAR31	<input checked="" type="checkbox"/>																
Data Checklist	Yes / No / NA																					

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fossil fuel that would have been used in the absence of the project activity. Does the PDD determine efficiency by adopting option (a), (b) or (c)?		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	Yes		
		Correct value provided?	No		
		Has this value been verified?	No		
		Choice of data correctly justified?	Yes		
		Measurement method correctly described?	NA		
		According the documents reviewed during the on site visit, the efficiency is between 86.7% - 87.2%. Nevertheless, heating plant manager reported that the efficiency is around 85% but no documents were available for reviewed that demonstrate this statement.			
<u>Corrective Action Request No.31.</u> Include in the PDD the more conservative value for the efficiency of the plant using fossil fuel and submit a document to confirm this value.					
B.6.2.2.4. Parameter Title: For cogen plants: the total efficiency (thermal and electrical both included) of the cogeneration plant using fossil fuel that would have been used in the absence of the project activity. Efficiency should be calculated as total energy pro-		N/A		☑	☑

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duced (electricity and steam/heat extracted) divided by thermal energy of the fuel used. Does the PDD determine efficiency by adopting option (a), (b) or (c)?				
B.6.2.2.5. Parameter Title: For retrofit/modification activities: average of historical thermal energy delivered by the existing facility (see methodology for method of calculation)		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.2.2.6. Parameter Title: For retrofit/modification activities: point in time when the existing equipment would need to be replaced in the absence of project activity (options a, b, or c)		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.2.3. For projects consuming biomass: specific fuel consumption of each type of fuel (biomass or fossil) (t fuel/MWh)		N/A	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.3. <i>Ex-ante calculation of emission reductions</i>				
B.6.4. <i>Summary of the ex-ante estimation of emission reductions</i>				
B.7. Application of the monitoring methodology and description of the monitoring plan				
B.7.1. <i>Data and parameters monitored</i>				
B.7.1.1. Is the list of parameters presented in	18	No, the list of parameters presented is not complete. The electric-	CAR32	<input checked="" type="checkbox"/>

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chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?		ity consumption from the biogas equipment is not included in this chapter. See also Corrective Action Request No.18 and Corrective Action Request No.19. <u>Corrective Action Request No.32.</u> Include in this section parameter ID9 included in section B.2. of the PDD.		
B.7.1.2.For all biomass projects: Periodic demonstration that the quantity of available biomass in the region, is at least 25% larger than the quantity of biomass that is utilised including the project activity		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.3.Does the PDD clearly state which of the given options for monitoring (a, b or c) is applied?		The project will calculate the emission reductions by monitoring the amount of biogas consumed by the boilers, the generator and the amount that would be flared.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.4.Option (a) – Parameter 1: HGy Net quantity of steam/heat supplied by the project activity, by metering the energy produced by a sample of the systems (TJ) If fossil fuel is used the thermal energy metered should be adjusted to deduct thermal energy from fossil fuels using the specific fuel consumption and the		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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<p>quantity of fossil fuel consumed</p> <p>The amount of thermal energy or electricity generated using biomass fuels calculated as per paragraph 20 (AMS I.C. v11) shall be compared with the amount of thermal energy or electricity generated calculated using specific fuel consumption and amount of each type of biomass fuel used. The lower of the two values should be used to calculate emission reductions.</p>				
<p>B.7.1.5.Option (b) – Parameter 1: HGy For cogen plants: net quantity of steam/heat supplied by the project activity (TJ)</p> <p>If fossil fuel is used the thermal energy metered should be adjusted to deduct thermal energy from fossil fuels using the specific fuel consumption and the quantity of fossil fuel consumed</p> <p>The amount of thermal energy or electricity generated using biomass fuels calculated as per paragraph 20 (AMS I.C. v11) shall be compared with the amount of thermal energy or electricity generated calculated using specific fuel</p>		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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consumption and amount of each type of biomass fuel used. The lower of the two values should be used to calculate emission reductions.				
B.7.1.6.Option (b) – Parameter 2: For cofired cogeneration projects, the amount of fossil fuel input		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.7.Option (b) – Parameter 3: EGy For cogen plants: Amount of electricity supplied by the project activity (GWh) If fossil fuel is used the electricity generation metered should be adjusted to deduct electricity generation from fossil fuels using the specific fuel consumption and the quantity of fossil fuel consumed The amount of thermal energy or electricity generated using biomass fuels calculated as per paragraph 20 (AMS I.C. v11) shall be compared with the amount of thermal energy or electricity generated calculated using specific fuel consumption and amount of each type of biomass fuel used. The lower of the two values should be used to calculate emission reductions.		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.8.Option (c) – Parameters 1 & 2:		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD																								
<p>If emission reductions are less than 5tCO2e/yr:</p> <p>(i) recording annually the number of systems operating (evidence of continuing operation, such as on-going rental/lease payments could be a substitute); and</p> <p>(ii) estimating the annual hours of operation of an average system, if necessary using survey methods. Annual hours of operation can be estimated from total output (e.g. tonnes of grain dried) and output per hour if an accurate is available.</p>																												
<p>B.7.1.9.For projects where only biomass or biomass and fossil fuel are used: the amount of biomass and fossil fuel input</p> <p>If more than one type of biomass fuel is consumed each shall be monitored separately.</p>	18 20	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>?</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>?</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>Partial</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Partial</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	?	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	?	Has this value been verified?	NA	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	No	QA/QC procedures described?	Partial	QA/QC procedures appropriate?	Partial	CR4	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	?																											
Appropriate description of parameter?	Yes																											
Source clearly referenced?	Yes																											
Correct value provided for estimation?	?																											
Has this value been verified?	NA																											
Measurement method correctly described?	Yes																											
Correct reference to standards?	Yes																											
Indication of accuracy provided?	No																											
QA/QC procedures described?	Partial																											
QA/QC procedures appropriate?	Partial																											

Table 1a is applicable to AMS III.H version 05

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
		<p>The data unit are expressed in Nm³ and the value of data presented is in m³.</p> <p>See Corrective Action Request No.19.</p> <p><u>Clarification Request No. 4.</u></p> <p>Clarify which unit would be used for monitoring.</p>		
B.7.1.10. For projects consuming biomass: specific fuel consumption of each type of fuel (biomass or fossil) (t fuel/MWh)		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.11. Parameter Title: TE _y For projects that involve the addition of new units: the total thermal energy produced in year y by all units, existing and new project units (TJ)		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.11.1. Parameter Title: WTE _y For projects that involve the addition of new units: the estimated thermal energy that would have been produced by existing units (installed before the project activity) in year y in the absence of the project activity (TJ), where WTE _y = MAX(WTE _{actual,y} , WTE _{estimated,y})		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.7.1.11.2.Parameter Title: WTEactual,y For projects that involve the addition of new units: the actual, measured thermal energy production of the existing units in year y (TJ)		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.11.3.Parameter Title: WTEestimated,y For projects that involve the addition of new units: the estimated thermal energy that would have been produced by the existing units under the observed availability of the renewable resource for year y (TJ)		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.11.4.Parameter Title: EGestimated, y For retrofit/modification activities: the estimated thermal energy that would have been produced by the existing units under the observed availability of renewable resource for year y (TJ)		NA.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.1.11.5.Are there any parameters missing or unclear for future monitoring in order to determine emission reductions?	9 18	See Corrective Action Request No.18.	Open	<input checked="" type="checkbox"/>
B.7.2. Description of the monitoring plan				

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
B.8. Date of completion of the application of the baseline study and monitoring methodology an the name of the responsible person(s)/entity(ies)				
<i>C. Duration of the project activity / crediting period</i>				
C.1. Duration of the project activity				
C.2. Choice of the crediting period and related information				
<i>D. Environmental impacts</i>				
D.1. If required by the host Party, documentation on the analysis of the environmental impacts of the project activity:				
D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party				
<i>E. Stakeholders' comments</i>				
E.1. Brief description how comments by local stakeholders have been invited and compiled				
E.2. Summary of the comments received				
E.3. Report on how due account was taken of any comments received				
<i>F. Annexes 1 – 4</i>				
F.1. Annex 1: Contact Information				
F.2. Annex 2: Information regarding public funding				
F.3. Annex 3: Baseline information				
F.4. Annex 4: Monitoring information				

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Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
<p><u>Clarification Request No. 1</u></p> <p>Clarify how the proposed project will reduce more organic matter in the wastewater than the actual process.</p>	Table 1a A.2.1	<p>The CDM project activity will have an 85 to 90% range of efficiency in COD and BOD reduction, as indicated by the technology supplier (Biotec) and based on experiences at similar Palm oil mill effluent (POME) treatment systems in Ecuador. The reference of these experiences is included in Annex 6 of the Supporting Documentation.</p> <p>On the other hand, the baseline treatment process (anaerobic lagoon) remains also with this efficiency for COD and BOD removal, so there is no relevant difference between both systems in terms of organic matter reduction.</p> <p>The CDM project activity will prevail over the baseline due to the management and utilization of biogas, and the treatment process in an enclosed environment that limits potential greenhouse gas emissions.</p>	<p>The request has been clarified, in information submitted show data from some plants in Ecuador confirming the statement</p> <p style="text-align: right;">☑</p>
<p><u>Corrective Action Request No.1</u></p> <p>Provide all the references with enough information allowing the possibility to be easily found. Furthermore, provide all data under the International System of Units.</p>	Table 1a A.2.4	<p>This has been revised as requested by the DOE.</p> <p><u>Comment by TÜV SÜD:</u> See comment on CAR10.</p> <p><u>Reply of Ecofys:</u></p>	<p>The data use now is in SI units and the references are correctly included</p> <p style="text-align: right;">☑</p>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		See reply on CAR10.	
<u>Corrective Action Request No.2</u> It is necessary to change the information provided in this chapter regarding the project owner for the one reported during the on site visit.	Table 1a A.3.3	This has been revised and corrected as requested by the DOE. The project owner is Energeticos Jaremar S.A. de C.V.	This Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.3</u> Provide the precise coordinates of the site location in GPS data as presented in <i>Figure 2: Location of the project activity</i> of the PDD.	Table 1a A.4.1.1	This has been revised as requested by the DOE. Precise coordinates for the project are N 15° 43.41' and W 87°35.4'. A new updated figure has been included for this new PDD submission.	The precise coordinates of the site location are provided in the PDD in GPS data as requested and it has been confirmed. This Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.4</u> It is necessary to correct the statement regarding the use of the sludge for composting treatment as this is not planned.	Table 1a A.4.2.6	This statement has been corrected in order to clarify the sludge management priorities of Energeticos Jaremar. The project proponent currently uses the sludge for land application to enhance the quality of the soil. Sludge application will be done on neighbouring fields, outside the project boundary by agricultural machinery. For future sludge management the project proponent envisages the possibility of including a composting treatment system. For both alternatives, methane emis-	The sludge management has been clarified, stating that the project proponent envisage a composting treatment system. This Corrective Action Request has been solved. <input checked="" type="checkbox"/>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		sions are considered negligible, because there are no anaerobic conditions in each of these sludge management processes.	
<u>Corrective Action Request No.5</u> Correct also the percentages presented for the composition (percentage of Carbon dioxide and Methane) of the captured biogas.	Table 1a A.4.2.6	This has been revised in the PDD as requested by the validator, giving reference to representative values of 65% of Methane and 35% of carbon dioxide of the total biogas flow. This is ex-ante value is based on similar Palm oil mill effluent treatment systems designed by Biotec	The percentages for the composition of the captured biogas were corrected and are acceptable. The Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.6</u> Submit the correct information regarding the energy delivered by the HTT boiler.	Table 1a A.4.2.6	This has been revised and the units of thermal power delivered has been changed from BTU/hour to MW _{th} . Also updated values on efficiency of the thermal oil heater have been included for this submission. Supporting documentation for the efficiency of the thermal oil heater is included in Annex 11.	The information has been corrected. This issue has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.7</u> Submit information regarding the biogas fuelled generator and provide to the validator the correct information and, if necessary, change the information in the PDD of the total generation capacity to be installed.	Table 1a A.4.2.6	This has been revised as requested by the DOE, and characterization of the generator has been included in the PDD. The generator is sized to minimize electricity consumption from the grid. The specifications of the generator are: <ul style="list-style-type: none"> o Installed capacity: 0.848 MWe o Model: Jenbacher GenSet JGC316 GS-B.L o Voltage: 840 Volts 	This Corrective Action Request has been solved. <input checked="" type="checkbox"/>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		<p>o Frequency: 60 Hz</p> <p>An additional variable has been included to the monitoring plan, in order to represent a potential scenario with an extra boiler or an extra generator to optimize the use of the available biogas. This flexibility is meant to suit the energy (thermal and electricity) needs of the refinery and the mill during the project's lifetime.</p>	
<p><u>Corrective Action Request No.8</u></p> <p>All information regarding the necessary training courses that needs be carried out should be provided to the validator or included in the PDD.</p>	Table 1a A.4.2.10	<p>Biotec, the digester technology supplier, will be in charge of the development of operational manuals and start-up of the digester.</p> <p>Biotec will give capacity building to the team within Jaremar that will operate the system. Also a Jenbacher expert, supplier of the power generation system, will train the same team on operation and maintenance of the generator set. Both training courses are established under the contracting conditions with the technology providers.</p> <p>Biotec has developed a training school to provide training to its personnel. Operators has been receiving training in biogas and generating system operation, also training in instrumentation and monitoring system has been provided through Biotec experienced engineers. All these arguments are included in the PDD.</p>	<p>This Corrective Action Request has been solved. Nevertheless, this issue shall be also checked during verification process.</p> <p style="text-align: right;">☑</p>
<p><u>Corrective Action Request No.9</u></p>	Table 1a	<p>This has been included in Annex 5 of the supporting Documentation, as part of this new submission of the</p>	<p>This Corrective Action Re-</p>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
It is necessary to submit an schedule of the implementation of the project or include the same in the PDD	A.4.2.11	<p>PDD.</p> <p><u>Comment by TÜV SÜD:</u> Clarify what does mean “Implementation and operation of the complete wastewater treatment system and bio-gas handling and use” present in the schedule provided when the crediting period starts in January 2008.</p> <p><u>Reply from Ecofys:</u> The implementation of the project includes three stages:</p> <ul style="list-style-type: none"> ○ Civil works at the lagoons ○ Operation of the wastewater treatment system and use of biogas in the boilers ○ Operation of biogas generator. <p>The operation of the wastewater treatment system including the use of biogas for the boilers, coincides with the beginning of the crediting period (January 2008). From this moment on emission reductions will be realised. The amount of realised emission reductions increase after the biogas generator system starts to operate (May 2008).</p>	<p>quest has been solved.</p> <p style="text-align: right;">☑</p>
<p><u>Corrective Action Request No.10</u></p> <p>It is necessary to provide the correct information regarding the palm oil mills in Honduras</p>	Table 1a B.4.7	A new reference has been prepared to illustrate the common practice related to treatment systems for Palm Oil Mill Effluents in the Honduran context. This has	Further information was submitted confirming the formal communication between

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
for the baseline scenario identification.		<p>been included in the PDD and it shows that open an-aerobic lagoons are the common practice for this industry in Honduras and that digesters have only been implemented for one palm oil mill, which is a registered CDM project.</p> <p><u>Comment by TÜV SÜD:</u></p> <p>The table provided does not include the source from where the information was obtained. Include the source of the information presented in table 4 of the PDD.</p> <p><u>Reply from Ecofys:</u></p> <p>This information has been obtained by contacting the Palm oil mill industry in Honduras (Palcasa and Agrotor/Jaremar) and is complemented with information obtained from the technology supplier Biotec.</p> <p><u>Further requirement by TÜV SÜD</u></p> <p>Submit a document that confirms this statement from the management of Palcasa and Agrotor and from Biotec.</p> <p><u>Reply from Ecofys:</u></p> <p>We have submitted the original communication with Palcasa and Agrotor. The table was made based on this communication.</p>	<p>project developer and project owner regarding this issue. Data provided has been check solving the corrective action request.</p> <p>☑</p>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		This was complemented with (telephone) talks with professionals from Biotec. There is no written communication available.	
<u>Corrective Action Request No.11</u> All barriers presented in the PDD should demonstrate their effect on the project and should be supported by public documents.	Table 1a B.5.15	This new submission of the PDD includes public references to support the Barrier analysis developed. <u>Comment by TÜV SÜD:</u> See above comment. <u>Reply from Ecofys:</u> See answer to CAR 10.	Further documents were provided to the validation team solving this issue. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.12</u> Correct the value provided in parameter ID6 of the PDD for the Build Margin.	Table 1a B.6.2.2.1	This has been corrected as requested by the validator.	The calculation of the EF has been checked and found acceptable. This Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.13</u> Provide the correct value of parameter ID9 of the PDD considering all the energy consumption.	Table 1a B.6.2.2.1	This has been updated and the correct value has been taken to section B.7.1 as ID29, where only the additional electricity consumption from the digester is monitored. The components that will represent the additional elec-	The electricity consumption from the pumps for the movement of the sludge and the increasing efficiency of the process shall be moni-

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion																				
		<p>Electricity consumption due to project implementation are listed below:</p> <table border="1"> <thead> <tr> <th>Description</th><th>hours of operation (h/year)</th><th>Power (KW)</th><th>Electricity consumption (KWh/year)</th></tr> </thead> <tbody> <tr> <td>Biogas blowers</td><td>7000</td><td>6</td><td>42,000</td></tr> <tr> <td>Instrumentation of Gas handling system and control room</td><td>8760</td><td>5</td><td>43,800</td></tr> <tr> <td>lightning for biogas handling area</td><td>4380</td><td>2</td><td>8,760</td></tr> <tr> <td colspan="3">TOTAL</td><td>94,560</td></tr> </tbody> </table> <p>Source: Biotec</p> <p>Electricity consumption from the previous pumps of the existing lagoons is not included, as they will be kept under this new waste treatment configuration. The electricity consumption of the pumps and piping from the previous treatment system are considered equal in baseline and project scenario.</p>	Description	hours of operation (h/year)	Power (KW)	Electricity consumption (KWh/year)	Biogas blowers	7000	6	42,000	Instrumentation of Gas handling system and control room	8760	5	43,800	lightning for biogas handling area	4380	2	8,760	TOTAL			94,560	<p>Reviewed in order to verify during verification process if the amount of energy consumed could be neglected.</p> <p><input checked="" type="checkbox"/></p>
Description	hours of operation (h/year)	Power (KW)	Electricity consumption (KWh/year)																				
Biogas blowers	7000	6	42,000																				
Instrumentation of Gas handling system and control room	8760	5	43,800																				
lightning for biogas handling area	4380	2	8,760																				
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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion																
		<p><u>Comments by TÜV SÜD</u></p> <p>The project includes several pumps for movement of the sludge and increase the efficiency of the process, the energy that will be consumed through these pumps have to be included in this parameter or clearly state in the PDD why is not included.</p> <p>Reply Ecofys</p> <p>The following information on the used pumps has been obtained from the technology supplier</p> <table border="1"> <thead> <tr> <th>Location</th><th>Number of pumps</th><th>Capacity (in KW)</th><th>Operating hour</th></tr> </thead> <tbody> <tr> <td>For Cooling tower supply</td><td>2 (1 operating)</td><td>11.2 KW</td><td>12</td></tr> <tr> <td>Lagoons: mixing</td><td>4 (2 per lagoon)</td><td>15KW</td><td>12</td></tr> <tr> <td>Lagoons: recirculation</td><td>2 (1 operating)</td><td>3.73 KW</td><td>12</td></tr> </tbody> </table> <p>The total electricity usage is $(11.2+15+3.73)*12 = 359$ kWh/day = 131 MWh/year. With an emission factor of 0.646 tCO₂/MWh this results in an annual emission of 85 tCO₂/year. The average emission reduction is 30,646 tCO₂/year. The relative share of the emissions from the pumps is 0.3%, therefore these emissions can be neglected.</p> <p>Under monitoring parameter ID30/EC_y (any comment) is included:</p> <p>The emissions resulting form the electricity consumption of the pumps located in the lagoons for sludge management can be neglected, since this represents a</p>	Location	Number of pumps	Capacity (in KW)	Operating hour	For Cooling tower supply	2 (1 operating)	11.2 KW	12	Lagoons: mixing	4 (2 per lagoon)	15KW	12	Lagoons: recirculation	2 (1 operating)	3.73 KW	12	
Location	Number of pumps	Capacity (in KW)	Operating hour																
For Cooling tower supply	2 (1 operating)	11.2 KW	12																
Lagoons: mixing	4 (2 per lagoon)	15KW	12																
Lagoons: recirculation	2 (1 operating)	3.73 KW	12																

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		share of 0.3% of the total emission reductions.	
<u>Corrective Action Request No.14</u> It is necessary to submit clear sources and calculations of the values given in the PDD.	Table 1a B.6.2.2.11	The source for the COD _{y,ww,untreated} value used on this PDD and Biotec's feasibility study is provided in Annex 8 of the Supporting Document included in this new submission.	This Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.15</u> Submit all necessary information in order to demonstrate the way used to obtain the values presented.	Table 1a B.6.3.2	All necessary information used to obtain the values presented in the ex-ante calculation are delivered in the excel spreadsheets "13112007 Emission reduction calculations Agrotor" and "13112007 Honduras Grid Emission Factor.XLS", as part of the previous submission of this PDD. Also additional supporting documentation is included under a separate file with additional annexes.	The calculation has been checked and is correctly done. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.16</u> It is necessary to discount the baseline energy consumption in emission reduction calculation.	Table 1a B.6.3.2	Please see answer to CAR N°13. This time the ex-post emission reduction calculation has been corrected to discount the project's electricity consumption. See comment above Reply Ecofys: See answer CAR 13	See conclusion on CAR13. <input checked="" type="checkbox"/>
<u>Clarification Request No. 2</u> Clarify the source used for the value obtained	Table 1a B.6.3.2	Source of data used for D _{CH4} (methane density): Referential value for methane in standard conditions	This Clarification Request has been solved.

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for parameter D_{CH_4} presented in the PDD and value NCV_b .		(ACM0001 version 7, footnote 6, page 8) Source of data used for NCV_b (net calorific value for bunker): Specifications from bunker provider: Olepro-ductos de Honduras (OLEPSA S.A.) Each source for these two variables are described under B.6.2	<input checked="" type="checkbox"/>
<u>Corrective Action Request No.17</u> Provide the table as required by the guideline version 04 for completing CDM-SSC-PDD.	Table 1a B.6.4.2	This has been revised as requested by the validator.	The tables now reflect the requirements of the guideline. This Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.18</u> Provide the parameter for the quantity of bunker that potentially would be used in the project.	Table 1a B.7.1.1	Methodology AMS.I-C ver. 11 says in paragraph 20: <i>If fossil fuel is used the thermal energy or the electricity generation metered should be adjusted to deduct thermal energy or electricity generation from fossil fuels using the specific fuel consumption and the quantity of fossil fuel consumed.</i> The verification of the thermal energy component for this digester project does not rely on measurements of heat or steam. Ex-post emission reductions for the thermal energy component are based on the quantity of biogas that is collected and consumed in the boilers. This represents the amount of fossil fuel that is replaced. It is not expected bunker consumption for the refinery	Considering that fossil fuel consumption is not expected and, in case of consumption, no methane will be consumed and no emission reductions will be claimed, the Corrective Action Request is solved. This should be confirmed during verification. <input checked="" type="checkbox"/>

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Table 1b is applicable to AMS I.C version 11

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		<p>during the operation of the project. However any potential bunker consumption in the project scenario will be part of the baseline scenario as well. Therefore less emission reductions are accomplished if bunker is consumed in the project scenario, only because less bio-gas is consumed in the boiler.</p> <p>Bunker consumption should not be subtracted from any of the equations for ex-post emission reduction estimation, and will not be included in the monitoring plan.</p>	
<p><u>Corrective Action Request No.19</u></p> <p>It is necessary to include for all the parameters the requirements presented in the decision on the EB 23 paragraph 24 (<i>"The Board considered recommendations by the Meth Panel and agreed that the specific uncertainty levels, methods and associated accuracy level of measurement instruments and calibration procedures to be used for various parameters and variables should be identified in the PDD, along with detailed quality assurance and quality control procedures. In addition standards recommended shall either be national or international standards. The verification of the authenticity of the uncertainty levels and instruments are to be undertaken</i></p>	Table 1a B.7.1.1	<p>This has been revised as requested by the DOE.</p> <p><u>Comment by TÜV SÜD:</u> Please provide additional information regarding the accuracy of monitoring equipment.</p> <p><u>Reply of Ecofys:</u> Accuracy levels of all monitoring equipments can still change until the project is completely implemented. The exact values will be provided to the DOE during the verification stage. For now we can guarantee that: "A high level of accuracy of the measurements will be achieved due to the use of high-precision equipment." as it is stated in the PDD.</p>	<p>As the equipment is not bought the answer is accepted. This Corrective Action Request has been solved.</p> <p style="text-align: right;">☑</p>

Table 1a is applicable to AMS III.H version 05

Table 1b is applicable to AMS I.C version 11

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<i>by the DOE during the verification stage”).</i>			
<u>Corrective Action Request No.20</u> Include the parameter for the measurement of the total amount of biogas recovered.	Table 1a B.7.1.2.9	Energeticos Jaremar has decided to include one additional biogas flow meter in order to cross check with the total measured values from the other flow meters. The monitoring plan is revised according to this modification.	This Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.21</u> Correct the value provided in ID13 of the PDD of 0.9% for the capture and flare efficiency.	Table 1a B.7.1.2.16	<p>CFE_{ww} is the capture and flare efficiency of the methane recovery and combustion equipment in the wastewater treatment. AMS.III-H ver.5 considers a default value of 0.9 for this variable. This has been used in the first PDD submission.</p> <p>The biogas that is collected and recovered from the digester will be consumed in the two boilers and the generator. These equipments are considered as units with controlled combustion efficiencies. However, a flare has been included to burn any surplus biogas which is not used in the previous combustion units. The flare will eventually operate a few hours a year, during the months of more biogas production (during August and October).</p> <p>We consider that the validator is referring to η_{flare} (flare efficiency). This variable is only used for the final ex-post calculation and a referential default value of 50 % has been considered in the monitoring plan of the original PDD.</p>	The clarification regarding the use of this value is accepted. The Corrective Action Request has been solved. <input checked="" type="checkbox"/>

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<u>Corrective Action Request No.22</u> Provide more information regarding the operational and management structure and responsibilities in the PDD.	Table 1a B.7.2.1	The section “B.7.2 Description of the monitoring plan” has been updated to explain the operational and management structure and responsibilities under the monitoring plan.	Further information has been provided in order to fulfill the request. The Corrective Action Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.23</u> It is necessary to change information in the graph presented in the PDD where it is stated that boiler 1 would fed to palm oil mill instead of refinery.	Table 1a B.7.2.1	The PDD has been corrected in order to represent the thermal energy use from the refinery instead of the palm oil mill.	This issue has been corrected. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.24</u> According the requirements of the guideline version 04 for completing CDM-SSC-PDD, the process to be applied for the monitoring should be included in this chapter.	Table 1a B.7.2.3	Please see CAR 22. The section “B.7.2 Description of the monitoring plan” has been updated to explain the operational and management structure and responsibilities under the monitoring plan.	The Corrective Action Request has been solved with the information included in the PDD. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.25</u> It is necessary to specified if the person/entity is project participant or not.	Table 1a B.8.1.5	This has been clarified in the PDD where it is stated that Ecofys B.V. has prepared the baseline and should not be considered as a project participant	This issue is solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.26</u> Change the reference of Environmental Impact Assessment for Environmental Qualita-	Table 1a D.1.1	This has been corrected as requested by the validator, and “assessment” has been replaced by “diagnostic” which is the appropriate and representative procedure.	The Corrective Action Request has been solved. <input checked="" type="checkbox"/>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
tive Diagnostic since this last one has been developed.			
<u>Clarification Request No. 3</u> Clarify which other stakeholders were invited to the meeting.	Table 1a E.1.1	A list with all the attendants to this meeting has been included in Annex 7 of the Supporting documentation.	This Clarification Request has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.27</u> Provide the full organization name.	Table 1a F.1.1	This has been corrected as requested by the validator, changing Energeticos Jaremar to Energeticos Jaremar S.A. de C.V.	This issue has been solved. <input checked="" type="checkbox"/>
<u>Corrective Action Request No.28</u> Any adjustment of the methodology needs an approval of the EB through request of deviation or revision. Confirm how you want to approach this minor adjustment mentioned in the PDD.	Table 1a F.3.2	There is no adjustment made to any of the applicable methodologies. Therefore a request for deviation approved by the EB is not needed. The emission factor for the Honduran electricity grid has been calculated following the approach of footnote 4 in ACM0002 ver.6. Plant emission factors have been estimated based on official records of annual fuel consumption, annual electricity generation for each power plant and IPCC default values for carbon emission factors of each fuel type. Unfortunately, there is no reliable information on fuel consumption for plants Elcatex and Ampac (fuelled with bunker and diesel, respectively, and representing approximately 1% of the electricity delivered to the local grid). For these cases plant emission factors have been	The CAR has been raised considering the statement presented in PDD version 01, in page 43 where said “a minor diversion from methodology ACM0002 is needed”. Nevertheless, this statement now has been correctly explained and the Corrective Action Request has been solved. <input checked="" type="checkbox"/>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		<p>estimated separately based on average specific fuel consumption (in lt/MWh) of power plants connected to the same grid and using the same fuels (following approach 3 c of footnote 4 in ACM0002). ENEE has provided representative information on specific fuel consumptions for bunker and diesel plants.</p> <p>A detailed explanation of the grid emission factor calculation is included under Annex 13 of the Supporting Documentation.</p>	
<p><u>Corrective Action Request No.29</u></p> <p>It is necessary to include a brief information of the two turbines currently use on site.</p>	Table 1b B.4.8	Currently there are two turbines that are part of a biomass cogeneration system previously installed to complement the consumption from ENEE, for power supply of the palm oil mill and the refinery. These turbines have not been implemented to dispatch any electricity to the grid. These two turbines, as well as their complete cogeneration system are not part of the CDM project activity. Their capacity is 0.98 MWe and 0.55 MWe.	<p>This issue has been solved with the information submitted.</p> <p style="text-align: center;">☑</p>
<p><u>Corrective Action Request No.30</u></p> <p>Provide a value including all the energy consumption for parameter “EC_y” (ID9) presented in the PDD.</p>	Table 1b B.6.1.4	<p>Please see answer to CAR N°13.</p> <p>Reply Ecofys:</p> <p>See answer CAR 13</p>	<p>Please, see conclusion on CAR13.</p> <p style="text-align: center;">☑</p>
<p><u>Corrective Action Request No.31</u></p> <p>Include in the PDD the more conservative</p>	Table 1b B.6.2.2.3	The efficiency values for the Cleaver Brooks Boilers presented in the PDD are provided from a Cleaver	This Corrective Action Request has been solved.

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
value for the efficiency of the plant using fossil fuel.		Brooks Manual. The most conservative values have been chosen to represent the efficiencies of the boilers with bunker or biogas. The efficiency values for the thermal oil heater are provided by the technology supplier, German company named HTT. Efficiency of steam boiler from Cleaver Brooks manual is included in Annex 10 of the Supporting Documentation. Efficiency of thermal oil heat from HTT reference is included in Annex 11 of the Supporting documentation	<input checked="" type="checkbox"/>
<u>Corrective Action Request No.32</u> Include in this section parameter ID9 included in section B.2. of the PDD.	Table 1b B.7.1.1	Please read answer to CAR13. This has been updated and the correct value has been taken to section B.7.1 as ID29, where internal electricity consumption from the digester is monitored. Reply Ecofys: See answer CAR 13	Further information is provided in final version of the PDD on ID30. Please, see conclusion on CAR13. <input checked="" type="checkbox"/>
<u>Clarification Request No. 4</u> Clarify which unit would be used for monitoring.	Table 1b B.7.1.9	This has been clarified in the PDD, and the final measurement of biogas flow will be in Nm ³ . The monitored volume of biogas (BGi) is automatically corrected to standard conditions by the measuring equipment, therefore no temperature and pressure measurement are required. The standard value for the density is derived from the standard conditions used for correction of the volume.	The Clarification Request has been solved. <input checked="" type="checkbox"/>

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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion																					
Further Corrective Actions																								
<p><u>Corrective Action Request No. 33</u></p> <p>Considering that Energeticos Jaremar operates its own biomass cogen-system, it should be clearly demonstrated, for the heat and electricity generation, the demand versus the necessity, in order to show that the biogas energy production is not a must for the operation of the Plant.</p>		<p>For electricity:</p> <p>The demand for electricity is as follows</p> <table><tr><td>Consumption from mill and refinery</td><td>1250</td><td>Kw</td></tr><tr><td>Consumption from nutshell processing plant</td><td>350</td><td>Kw</td></tr><tr><td>Total</td><td>1600</td><td>KW</td></tr></table> <p>The supply from the biomass co-generation system and the national grid (ENEE) is as follows:</p> <table><tr><td>Generation from Copus Steam turbine (biomass)</td><td>450</td><td>Kw</td></tr><tr><td>Generation from Nadroswky Steam turbine (biomass)</td><td>900</td><td>Kw</td></tr><tr><td>Imported from the grid (Enee) (average)</td><td>250</td><td>Kw</td></tr><tr><td>Total</td><td>1600</td><td>Kw</td></tr></table> <p>An approximate maximum of 600KW is imported from the grid, as can be seen by the figure below. This amount of</p>	Consumption from mill and refinery	1250	Kw	Consumption from nutshell processing plant	350	Kw	Total	1600	KW	Generation from Copus Steam turbine (biomass)	450	Kw	Generation from Nadroswky Steam turbine (biomass)	900	Kw	Imported from the grid (Enee) (average)	250	Kw	Total	1600	Kw	<p>The information provided in the protocol states that the biogas energy production is not a must for the operation of the plant.</p> <p><input checked="" type="checkbox"/></p>
Consumption from mill and refinery	1250	Kw																						
Consumption from nutshell processing plant	350	Kw																						
Total	1600	KW																						
Generation from Copus Steam turbine (biomass)	450	Kw																						
Generation from Nadroswky Steam turbine (biomass)	900	Kw																						
Imported from the grid (Enee) (average)	250	Kw																						
Total	1600	Kw																						

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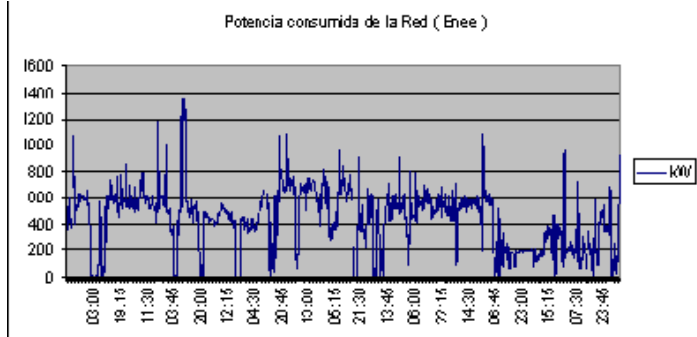
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Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
		<p>power will be supplied by the biogas generator installed as part of the CDM project activity.</p>  <p>For heat: The project replaces bunker in two boilers at the refinery used for steam generation. In order to utilise the captured biogas in the boilers one burner will be replaced and the other one will be adapted. Any surplus of biogas will be flared.</p>	
<p>Corrective Action Request No. 34 It is necessary to submit information and documented evidence in order to demonstrate when the decision to initiate and proceed with the project activity was made.</p>		<p>The decision to carry out the project was made by the project developer after reading the feasibility study executed by Biotec which clearly states the additional income from carbon credits. The Biotec feasibility study was presented day 11-07-06. The feasibility study was provided to the DOE.</p>	<p>The Corrective Action Request has been solved with the information submitted.</p> <p style="text-align: right;">☑</p>

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

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


Validation of the CDM Project:

Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras.




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Annex 2: Information Reference List

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		Information Reference List		

Reference No.	Document or Type of Information
1	<p>On-site interview at the project site with project developers was conducted on July 30th and August 1st, 2007; by auditing team:</p> <p>Validation team on-site: Javier Castro Eric Tolcach TÜV SÜD Industrie Service GmbH; ATISAE - TÜV SÜD Group.</p> <p>Interviewed persons: Carsten Warnecke Manuel Flores Calidoneo Miguel Gaído Ernesto León Villamizar CDM Consultant OneCarbon; Project Coordinator, Energéticos Jaremar; Operation Coordinator, Bio-Tec; Works Direction, Bio-Tec.</p>
2	Draft PDD “Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras”, dated July 12 th 2007 version 01; submitted on July 2007;
3	Boiler Technical Specification; HTT; submitted in August 2007;
4	“Plan de inversion social” (<i>Social Investment Plan</i>), Energeticos Jaremar S.A. de C.V.; confidential; submitted August 2007;
5	“Licencia Ambiental” (<i>Environmental License</i>) issued by “Secretaría Recursos Naturales y Ambiente” to Energeticos Jaremar; dated June 11 th 2007; submitted on August 2007;
6	“Feasibility study”; confidential; reviewed in August 2007;
7	“Environmental Qualitative Diagnostic”, confidential, reviewed in August 2007;
8	“Boiler Efficiency, Facts you should know about firetube boilers and boiler efficiency”, Cleaver-Brooks, reviewed in August 2007;
9	Methodology AMS.III.H version_05;
10	Methodology AMS.I.C version_11;
11	“Supporting information SSC-PDD Agrotor fei.doc”; submitted in October 2007;
12	“27112007 Supporting information SSC-PDD Agrotor.pdf”, dated October 2007; submitted November 2007;
13	“AMS.III Agrotor 03072007 for validation.xls”; submitted in July 2007;
14	“13112007 Emission reduction calculations Agrotor version 2.xls”; submitted in November 2007;
15	“Grid Emission Factor PDD 13 July AGROTOR.xls”; submitted in July 2007;
16	“13112007 Honduras Grid Emission Factor Agrotor.xls”; submitted in November 2007;

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		Information Reference List		

Reference No.	Document or Type of Information
17	“Consulta respecto de contexto extractoras de palma” (<i>Consultation regarding the context of the palm mills</i>), mail between project developer and Palcasa-Agrotor/Jaremar personnel; submitted in November 2007;
18	Comments and answers presented in final validation protocol;
19	“13112007 Response to additional questions Agrotor.doc”; submitted in November 2007;
20	PDD “Energeticos Jaremar – Biogas recovery from Palm Oil Mill Effluent (POME) ponds, and heat & electricity generation, Honduras”, Dated November 13 th , 2007 version 2.3; submitted in November 2007.