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# Validation Report

**Promotora Ambiental de la Laguna S.A. de C.V.**

**VALIDATION OF THE CDM-PROJECT:  
CULIACAN NORTHERN LANDFILL GAS PROJECT**

**REPORT NO. 1157165**

**July 07<sup>th</sup>, 2010.**

TÜV SÜD Industrie Service GmbH  
Carbon Management Service  
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<b>Subject:</b> Validation of a CDM Project			
<b>Accredited TÜV SÜD Unit:</b> TÜV SÜD Industrie Service GmbH Certification Body "climate and energy" Westendstr. 199 80686 Munich Germany		<b>TÜV SÜD Contract Partner:</b> TÜV SÜD Industrie Service GmbH Carbon Management Service Westendstr. 199 80686 Munich Germany	
<b>Project Participant:</b> Promotora Ambiental de la Laguna S.A.de C.V. Los Andes 204 Coyoacán Guadalupe, Nuevo León CP. 64510		<b>Project Site(s):</b> Northern Landfill of Culiacan, Pitayita way km 2.5, Culiacan, Sinaloa, Mexico. The GPS coordinates were taken from the center point of proposed project site which are 24°52'49" N, 107°22'3" W	
<b>Project Title:</b> Culiacan Northern Landfill Gas Project.			
<b>Applied Methodology / Version:</b> ACM0001 version 11		<b>Scope(s):</b> 13, 1 <b>Technical Area:</b> 1.2 / 13.1	
<b>First PDD Version:</b> Date of issuance: January, 2008 Version No.: 01 Starting Date of GSP 02-04-2008		<b>Final PDD version:</b> Date of issuance: 06-07-2010 Version No: 5.2	
<b>Estimated Annual Emission Reduction:</b>		42,746 tCO <sub>2</sub> e	
<b>Assessment Team Leader:</b> Javier Castro <b>Assessment Team Members:</b> Arturo Lemus (GHG Auditor) Guadalupe Avendaño Cesar Villarreal		<b>Technical reviewer:</b> Sergio Degener Rachel Zhang <b>Certification Body responsible:</b> Rachel Zhang	
<b>Summary of the Validation Opinion:</b> <div style="margin-left: 20px;"> <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. </div>			



## Abbreviations

<b>ACM</b>	Approved Consolidated Methodology
<b>AM</b>	Approved Methodology
<b>AMS</b>	Approved Methodology Small scale
<b>BM</b>	Build Margin
<b>CAR</b>	Corrective Action Request
<b>CDM</b>	Clean Development Mechanism
<b>CDM EB</b>	CDM Executive Board
<b>CER</b>	Certified Emission Reduction
<b>CMP</b>	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
<b>CR / CL</b>	Clarification Request
<b>DNA</b>	Designated National Authority
<b>DOE</b>	Designated Operational Entity
<b>EF</b>	Emission Factor
<b>EIA / EA</b>	Environmental Impact Assessment / Environmental Assessment
<b>ER</b>	Emission Reduction
<b>GHG</b>	GreenHouse Gas(es)
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IRL</b>	Information Reference List
<b>IRR</b>	Internal Rate of Return
<b>KP</b>	Kyoto Protocol
<b>MP</b>	Monitoring Plan
<b>NGO</b>	Non Governmental Organisation
<b>OM</b>	Operational Margin
<b>PDD</b>	Project Design Document
<b>PP</b>	Project Participant
<b>TÜV SÜD</b>	TÜV SÜD Industrie Service GmbH
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>VVM</b>	Validation and Verification Manual



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Annex 1: Validation Protocol

Annex 2: Information Reference List



# 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 Executive Board (CDM-EB). The ultimate decision on the registration of a proposed project activity rests at the CDM-EB and the Parties involved.

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

“Culiacan Northern Landfill Gas Project”

## 1.2 Scope

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

- The Kyoto Protocol, in particular § 12 and modalities and procedures for the CDM
- 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 and 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)
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the sectoral scope applied for
- Applicable environmental and social impacts and aspects of CDM project activity
- Sector specific technologies and their applications
- Current technical and operational knowledge of the specific sectoral scope and information on best practice

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



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Once TÜV SÜD receives a first PDD version, it is made publicly available at the UNFCCC webpage and at TÜV SÜD's webpage 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 could be repeated) and the final PDD will form the basis for the final evaluation as presented in this report. Information on the first and the final PDD version is presented in page 2.

The only purpose of a validation is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD cannot 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 applies standard auditing techniques to assess the correctness of the information provided by the project participants. The assessment is based on the "Clean Development Mechanism Validation and Verification Manual" version 01. The work starts with appointment of team covering the technical scope(s), sectoral scope(s) and relevant host country experience for evaluating the CDM project activity. Once the project is made available for the stakeholder consultation process, members of the team carry out the desk review, follow-up actions, resolution of issues identified and finally preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB "climate and energy" before submission to the CDM-EB.

In order to ensure transparency, assumptions are clear and explicitly stated; the background material is clearly referenced. . TÜV SÜD developed a methodology specific protocol customised for the project. 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 and any adjustment made to the project design.

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</i>	<i>Gives reference to documents where the answer to the checklist question or item is found in case the comment refers to documents</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</i>	<i>Conclusions are presented based on the assessment of the first PDD version. This is either acceptable based on evidence provided (✓), or a <b>Corrective Action Request (CAR)</b> due to non-compliance with the checklist question (See below). <b>Clarification Request (CR)</b> is used when the validation team has identified a need for</i>	<i>Conclusions are presented in the same manner based on the assessment of the final PDD version and further documents including assumptions presented in the documentation.</i>



<i>checklist question / criterion.</i>	<i>other than the PDD.</i>	<i>indicating yes/no decisions on the compliance with the stated criterion. Any <b>Request</b> has to be substantiated within this column</i>	<i>further clarification. <b>Forward action request</b> to highlight issues related to project implementation that require review during the first verification.</i>	
<b>Validation Protocol Table 2: Resolution of Corrective Action and Clarification Requests</b>				
<b>Clarifications and corrective action requests</b>	<b>Ref. to table 1</b>	<b>Summary of project owner response</b>	<b>Validation team conclusion</b>	
<i>If the conclusions from table 1 are either a Corrective Action, a Clarification or a Forward action Request, these should be listed in this section.</i>	<i>Reference to the checklist question number in Table 1 where the issue 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 discussion on and revision to project documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final PDD".</i>	

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

<b>Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests</b>		
<b>Clarifications and corrective action requests</b>	<b>Id. of CAR/CR 1</b>	<b>Explanation of the Conclusion for Denial</b>
<i>If the final conclusions from table 2 results in a denial the referenced request should be listed in this section.</i>	<i>Identifier of the Request.</i>	<i>This section should present a detail explanation, why the project is finally considered not to be in compliance with a criterion with a clear reference to the requirement which is not complied with.</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 (CB) ensuring that the required skills are covered by the team. The CB TÜV SÜD operates four qualification levels for team members that are assigned by formal appointment rules:

- Assessment Team Leader (ATL)
- Greenhouse Gas Auditor (GHG-A)



- Greenhouse Gas Auditor Trainee (T)
- Experts (E)

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

Name	Qualification	Coverage of technical scope	Coverage of technical area	Host country experience
<b>Javier Castro</b>	ATL	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Arturo Lemus*	GHG-A			<input checked="" type="checkbox"/>
Guadalupe Avendaño*	T			<input checked="" type="checkbox"/>
Cesar Villarreal*	T			<input checked="" type="checkbox"/>

\* Person not appointed in the actual QM system.

**Javier Castro** was 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 the validation, verification and certifications processes for GHG mitigation projects. He has received extensive training in the CDM and JI validation processes, and participated in some validation and verification of CDM projects.

**Arturo Lemus** is a GHG auditor and project manager for CDM activities in Mexico City. In his position he is responsible of coordination of all activities of Validation and Verification of the projects developed in Mexico. He has received extensive training in the CDM validation and verification processes and participated already in several CDM project assessments as auditor.

**Guadalupe Avendaño** has an academic background in electronic and communications engineering. She has participated as local auditor in the audit and functioned as local expert. Guadalupe Avendaño has received extensive training and participated in the CDM validation and verification processes.

**Cesar Villarreal** is a GHG auditor. He is a mechanical engineer that has been working as environmental, health and safety expert in Mexico. He received general training on the clean development mechanism.

## 2.2 Review of Documents

A first version of the PDD was submitted to the DOE in January, 2008. The first PDD version submitted by the PP and additional background documents related to the project design and baseline were reviewed to verify the correctness, credibility and interpretation of the presented information. A complete list of all documents and proofs reviewed is attached as annex 2 to this report.

## 2.3 Follow-up Interviews

On April 2<sup>nd</sup> and 3<sup>rd</sup>, 2008 TÜV SÜD performed interviews, telephone conferences and physical site inspection with project stakeholders to confirm relevant information and to



resolve issues identified in the first document review. The table below provides a list of all persons interviewed in this context.

Name	Organisation
Alfonso Martínez	Promotora Ambiental SAB de CV
Carlos Sánchez	Promotora Ambiental SAB de CV
Luciano Zavala	Culiacan Municipality
Ubaldo Inclán	Cantor CO <sub>2e</sub>
Jorge Ortiz	John Zink
José Luis Dávila	SCS Engineers
Miguel Nájera	Culiacan Landfill Management

## 2.4 Further cross-check

During the validation process, the team makes reference to available information related to similar projects or technologies as the CDM project activity. The documentation has also been reviewed against the approved methodology applied to confirm the appropriateness of formulae and correctness of calculations.

## 2.5 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 conclusion on the project design. The CARs and CRs 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 documented in more detail in the validation protocol in annex 1.

The final PDD version that was submitted in April 06 2009 serves as the basis for the final assessment presented herewith. Changes are not considered to be significant with respect to the qualification of the project as a CDM project based on the two main objectives of the CDM, i.e. to achieve a reduction of anthropogenic GHG emissions and to contribute to a sustainable development.

## 2.6 Internal Quality Control

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

After confirmation of the PP the validation opinion and relevant documents are submitted to the EB through the UNFCCC web-platform.



### 3 SUMMARY

The assessment work and the main results are described below in accordance with the VVM reporting requirements. The reference documents indicated in this section and Annex 1 are stated in Annex 2.

#### 3.1 Approval

The project participant is Promotora Ambiental de la Laguna S.A.de C.V. from Mexico and the host Party Mexico meet the requirements to participate in the CDM.

The DNA of Mexico had issued a LoA (IRL #7) on 14 August 2009 authorizing Promotora Ambiental de la Laguna S.A.de C.V; as a project participant. TÜV SÜD received this letter from the project participant directly and considers the provided letter as authentic.

The Mexico LoA has further been double-checked with the CDM project webpage sponsored by the Department of Climate Change, SEMARNAT ([www.semarnat.gob.mx](http://www.semarnat.gob.mx)), which further confirms the approval of this CDM project.

Furthermore, after checking the provided LoAs, TÜV SÜD confirms that the letter refers to the precise proposed CDM project activity title in line with the title in the PDD “Culiacan Northern Landfill Gas Project.”

The letter also indicates that the participating Party Mexico is a Party to the Kyoto Protocol, and that the participation in the “Culiacan Northern Landfill Gas Project” is voluntary. The Mexico LoA also confirms that the proposed CDM project activity contributes to the sustainable development of Mexico (host country). Based on the information given in this letter, TÜV SÜD considers the approval as unconditional with respect to these items.

The LoA has been issued by the respective Party’s DNA, Comision Intersecretarial de Cambio Climatico.

TÜV SÜD considers the requirements of the VVM (§§ 45-48) to be complied with.

The LoA does not specify a version number of the PDD or validation report. The corresponding references included to LoA, PDD and validation report are consistent.

#### 3.2 Participation

The participant of the project activity has been approved by the corresponding Party, which is confirmed by the issued LoA.

It is important to mention that, at the beginning of the GSP, the project participant was Promotora Ambiental S.A.B de C.V. The corresponding Letter of Approval was delivered to the DOE (IRL # 7). Nevertheless, due to an internal corporative decision, the project participant changed to Promotora Ambiental de la Laguna S.A. de C.V. To support the PP change, the proponent delivered a new Letter of Approval (IRL #7) together with the corresponding Modalities of Communication Form (IRL #28) in which the withdraw of the first PP is declared. The DOE validate this information.

The means of validation were equivalent to those described in section 3.1 in regard to the approval process of the project activity.



### 3.3 Project design document

The PDD is compliant with relevant form and guidance as provided by UNFCCC.

The most recent version of the PDD form was used.

TÜV SÜD considers that the guidelines for the completion of the PDD in their most recent version have been followed. Relevant information has provided by the participants in the applying PDD sections. Completeness was assessed through the protocol included to Annex 1 of this report.

### 3.4 Project description

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

The purpose of this project is to reduce GHG emissions through the capture, flare and combustion of methane from a Landfill. In a first stage of the project it is planned to flare the landfill gas; in a second stage it is planned to produce electricity from the landfill gas.

The proposed project activity will claim CER credits for the following activities:

- Methane which was uncontrolled released into the atmosphere in the baseline scenario, is captured, flared and used to produce electricity
- More carbon intensive grid electricity will be displaced by electricity generated from the proposed project activity.

This project proposes to apply the large scale Consolidated baseline and monitoring methodology for landfill gas project activities, ACM0001 version 11, identified in Sectoral Scopes 13, waste handling and disposal, and 1, energy industries. The proposed project activity will mitigate GHG emissions in an economically sustainable manner, and will result in other environmental benefits, such as the reduction of methane total atmospheric release and the savings in energy from fossil fuels. In simple terms, the project proposes to capture the landfill gas and to generate energy from the captured biogas.

The information presented in the PDD on the technical design is consistent with the actual planning and implementation of the project activity as confirmed by:

- Review of data and information regarding equipment's technical characteristics (IRL #10).
- An on-site visit has been performed and relevant stakeholder and personnel with knowledge of the project were interviewed.
- Finally information related to similar projects or technologies as the CDM project activity have been verified at <http://cdm.unfccc.int/Projects/projsearch.html> where there are 10 landfill projects registered under CDM in the host Party Mexico to confirm the accuracy and completeness of the project description.

In light of the above, TÜV SÜD confirms that the project description as included to the PDD is sufficiently accurate and complete in order to comply with the requirements of the CDM.



### **3.5 Baseline and monitoring methodology**

#### **3.5.1 Applicability of the selected methodology**

Compliance with each applicability condition as listed in the chosen baseline and monitoring methodology ACM0001 / Version 11 has been demonstrated.

The assessment was carried out for each applicability criteria and included among others the compliance check of the local project setting with the applicability conditions in regard to baseline setting and eligible project measures. This assessment also included the review of secondary sources which sustain that applicability conditions are complied with.

The Methodology specific protocol included as Annex 1 documents the assessment process, including the steps taken. The results on the compliance check as well as the relevant evidence are explicitly presented in annex 1.

TÜV SÜD confirms that the chosen baseline and monitoring methodology is applicable to the project activity.

Emission sources which are not addressed by the applied methodology and which are expected to contribute more than 1% of the overall expected average annual emissions reduction have not been identified.

#### **3.5.2 Project boundary**

The project boundary was assessed in the context of physical site inspection, interviews and based on the secondary evidence received on the design of the project.

- For the baseline determination, the project boundary is the site of the project activity where the gas will be captured and utilized/destroyed, as well as all the power generation sources connected to the grid to which the project activity is connected (as the electricity generated by the LFG captured would have been generated by power generation sources connected to the grid). This project proposes to apply the large scale Consolidated baseline and monitoring methodology for landfill gas project activities, ACM0001 version 11 identified in Sectoral Scopes 13, waste handling and disposal, and 1, energy industries
- The most relevant documentation assessed in order to confirm the project boundary are following:
  1. Design Report issued by SCS Energy, in which it is fully described the physical place in which the project will take place (IRL #18)
  2. Gas collection system design for Relleno Sanitario Norte, Culiacan, Mexico, technical report , issued by SCS Engineers, the project boundary is shown through a map of the site (IRL #16)

The same have been validated during the validation process using standard audit techniques, further details of any observation are transparently presented in the annex 1.

Hence TÜV SÜD confirms that the identified boundary and the selected sources and gases as documented in the PDD are justified for the project activity.



### 3.5.3 Baseline identification

In the PDD the following baseline scenario has been defined:

Without the proposed project activity the release of landfill gas into the atmosphere will continue to occur. The electricity is obtained from the grid generating emissions.

The physical area of Culiacan Northern Landfill consists of 100 ha, from which 33 ha are occupied. The landfill has received 450-500 tons per day since 2008 because the Municipality fixed a new disposal site for urban waste. The project involves only cells from 1 to 10 which are now closed and do not receive waste anymore.

Once each cell reaches its total capacity, it is sealed or covered. Therefore Culiacan Northern landfill common practice is the total atmospheric release of GHG. The landfill gas collection will be initially installed in the closed cells, and the rest of them will be connected to the system upon Closure.

The above description was corroborated during the on-site visit together with the baseline information provided to the DOE, which consist in a Gas Collection System Design (IRL #16). During the on-site visit it was corroborated that there is any landfill gas collection as part of the baseline.

The information presented in the PDD has been validated by a first document review of all the data, further confirmation based on the on-site visit and a final step by cross checking the information with similar relevant projects and/or technologies. The sources referenced in the PDD have been quoted correctly. The information was cross-checked based on verifiable and credible source, such as:

- Gas collection system design for Relleno Sanitario Norte, Culiacán, Mexico (IRL #. 16)

TÜV SÜD has determined that no reasonable alternative scenario has been excluded.

Based on the validated assumptions on calculations TÜV SÜD considers that the identified baseline scenario is reasonable.

TÜV SÜD confirms that all relevant CDM requirements, including relevant and / or sectoral policies and circumstances, have been identified correctly taken into account in the definition of the baseline scenario.

A verifiable description of the baseline scenario has been included to the PDD.

In regard to item 86 of VVM, TÜV SÜD confirms that:

1. All the assumptions and data used by the project participants are listed in the PDD, including their references and sources;
2. All documentation used is relevant for establishing the baseline scenario and correctly quoted and interpreted in the PDD;
3. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable;
4. Relevant national and/or sectoral policies and circumstances are considered and listed in the PDD;
5. The approved baseline methodology has been correctly applied to identify the most reasonable baseline scenario and the identified baseline scenario reasonably represents what would occur in the absence of the proposed CDM project activity.





### **3.5.4 Algorithm and/or formulae used to determine emission reductions**

TÜV SÜD has assessed the calculations of project emissions, baseline emissions and leakage and emission reductions. Corresponding calculations were carried out based on calculation spreadsheets. The parameters and equations presented in the PDD and further documentation have been compared with the information and requirements presented in the methodology and respective tools. The equation comparison has been made explicitly following all the formulae presented in the calculation files.

The assumptions and data used to determine the emission reductions are listed in the PDD and all the sources have been checked and confirmed.

Based on the information reviewed it can be confirmed that the sources used are correctly quoted and interpreted in the PDD.

The values presented in the PDD are considered reasonable based on the documentation reviewed, further references and the result of the interviews.

The baseline methodology has been correctly applied following the requirements.

The estimate of the baseline emissions can be confirmed as the same have been replicated by the audit team using the information provided.

Detailed information on the verification of the parameters used in the equations can be found in the annex 1. The algorithms for the determination of the baseline, project and leakage are discussed in the following sections.

#### **3.5.4.1 Baseline Emissions**

TÜV SÜD has assessed the calculations of project emissions, baseline emissions and leakage and emission reductions. Corresponding calculations were carried out based on calculation spreadsheets. The parameters and equations presented in the PDD and further documentation have been compared with the information and requirements presented in the methodology and respective tools. The equation comparison has been made explicitly following all the formulae presented in the calculation files.

The calculation of the baseline emissions followed the procedures described in the methodology ACM0001 Version 11 This methodology requires the use of the “Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site”, version 4 ([http://cdm.unfccc.int/methodologies/Tools/meth\\_tool04\\_v04.pdf](http://cdm.unfccc.int/methodologies/Tools/meth_tool04_v04.pdf)), which shows the calculation to estimate the amount of methane produced by the landfill in the absence of the project activity, through the multiphase first order decay model.

The adjustment factor is considered to be 0 (zero). The DOE validated this information according to the interviews conducted and official documents from Mexico’s government available at:

(<http://www.semarnat.gob.mx/leyesynormas/Normas%20Oficiales%20Mexicanas%20vigentes/NOM-083-SEMAR-03-20-OCT-04.pdf> ). (IRL #27).

The assumptions and data used to determine the emission reductions are listed in the PDD and all the sources have been checked and confirmed. The suitability of the baseline assumptions used in the calculation of the emission reduction was confirmed through the following document review “Gas collection system design for Relleno Sanitario Norte, Culiacan, Mexico, technical report”, provided by SCS Engineers for Baseline information (IRL 16) and “Complete Culiacan Landfill Design Report.pdf”, prepared by SCS Energy (IRL 18). The design report contains the landfill gas (LFG) collection system design plan and engineering calculations including information on the waste characterization.



Furthermore, during the on-site visit it was possible to confirm the assumption of the “managed solid waste disposal site” for the project activity.

Considering the information reviewed, the verified situation observed during the on-site visit and the technological and local expertise of the validation team, all the assumptions made for the estimation of emission reduction can be considered correct and suitable for the project activity.

Based on the information reviewed it can be confirmed that the sources used are correctly quoted and interpreted in the PDD.

The values presented in the PDD are considered reasonable based on the documentation reviewed, further references and the result of the interviews.

The baseline methodology has been correctly applied following the requirements.

The estimate of the baseline emissions can be confirmed as the same have been replicated by the audit team using the information provided.

Detailed information on the verification of the parameters used in the equations can be found in the annex 1.

#### **3.5.4.2 Project emissions**

Project emissions consist on electricity imports, emissions due to the use of the flare and emissions due to fossil fuel combustion. The project emissions from fossil fuel consumption will be calculated by the latest version of “Tool to calculate project emissions from the fossil fuel”. It is also clear that in case when the project is not generated electricity the  $EL_{LFG,y}$  would be zero.

To calculate project emission associated with the electricity imported from the grid, the revised PDD uses the emission factor of  $0.538 \text{ tCO}_2/\text{MWh}$ . This value is appropriate and conservative to be used in this project activity since the revised PDD uses the emission factor from the most recent electricity data available in Mexico at the time of commencement of validation (See CAR9 in the validation protocol). Every year CFE (National Electricity Ministry) emits a document in which information from the last recent years is published and tries to predict the future conditions of Energy Sector in Mexico (IRL #8). The emission factor calculation has been set ex-ante. This value is appropriate and conservative to be used in this project activity. Clear and complete calculations and data were validated by the DOE (IRL #8 and #11).

Project emissions from the flare will be calculated with the “Tool to determine project emissions from flaring gases containing methane” through a continuous monitoring of the methane destruction efficiency.

#### **3.5.4.3 Leakage emissions**

No leakage effects need to be accounted for under this methodology.

#### **3.5.4.4 Emission Reductions**

In summary, the calculation of the baseline emissions; project emissions, and the emission reductions, respectively, can be considered as correct.

### **3.6 Additionality**

The additionality of the project has been presented in the PDD using following approach:

The additionality tool has been used, and in order to prove the additionality of the project the investment analysis was applied through the Benchmark analysis.





According to the used additionality tool, the Benchmark IRR to be compared to the project IRR may be the government bond rates (in Mexico these are called CETES, Treasury Certificates) plus a risk premium. CETES rates at 364 days are set as 7.4% in February 2008; while the country risk premium for Mexico is set at 2.00% for years 2007 and 2008, as per "Organization for Economic Co-operation and Development (OECD)". The benchmark rate of return is set at least at 9.4% (IRL #13). The DOE considers the benchmark calculation correct based on the "Tool for demonstration and assessment of additionality" statement: *"(a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data"* Also the DOE verifies that for the CETES, the longest period available is used (364 days). Information regarding CETES and risk premium is public and available at the mentioned references.

The financial analysis indicates that without carbon revenues the IRR is 2.3%. With carbon credit revenues assuming a CERs price of \$15 USD/tonCO<sub>2</sub>e the IRR is 16.2 %. This information was demonstrated in the calculations revised by the DOE (IRL # 12).

According to the methodology for determination of additionality, if the alternatives of the CDM project activity do not include the investments of comparable of the scale to the project, the option III of the benchmark analysis must be used.

The approach used in the PDD has been assessed first based on a document review, where following relevant documents have been reviewed:

- Financial Analysis with and without CDM incentives (IRL #12).
- <http://www.banxico.org.mx/polmoneinflacion/estadisticas/tasasInteres/tasasInteres.html> (IRL #13)

On site the additionality has been discussed principally with: Promotora Ambiental de la Laguna S.A. de C.V.

Finally the data, rationales, assumptions, justifications and documentation provided have been checked using local knowledge and sectoral and financial expertise, the same has been cross checked by:

- Complete Culiacan Landfill Design Report.pdf, showing the complete study to implement the project activity, including costs (IRL #18)
- [http://www.sener.gob.mx/webSener/res/PE\\_y\\_DT/ee/Precios\\_Medios1.xls](http://www.sener.gob.mx/webSener/res/PE_y_DT/ee/Precios_Medios1.xls), this link shows the electricity prices in Mexico (IRL #22)
- [http://www.sat.gob.mx/sitio\\_internet/asistencia\\_contribuyente/informacion\\_frecuente/tipo\\_cambio/42\\_8980.html](http://www.sat.gob.mx/sitio_internet/asistencia_contribuyente/informacion_frecuente/tipo_cambio/42_8980.html), site shows the currency exchange during the year 2007 (IRL #23)
- PASA costs.tif, this is a summary of costs of the implementation of the project activity (IRL #24)
- "SCS-Culiacan Letter.pdf", in which SCS Engineers describe the costs of producing energy in Mexico (IRL #25)
- Diario Oficial de la Federación.pdf, Taxes rates in Mexico (IRL #29)
- Mexican inflation for years 2007-2008 (<http://www.banxico.org.mx/PortalesEspecializados/inflacion/inflacion.html>) and

the expectation for the next years

(<http://www.banxico.org.mx/documents/{05E17D58-E68F-24B2-6115-3F0B0F3F9CF3}.pdf>) IRL #30.

Based on this validation steps we can confirm that the documentation assessed is appropriate for this project.

### 3.6.1 Prior consideration of the clean development mechanism

The starting date of the project activity is 05/06/2008, which is the date when the purchase order of the equipment to be used was signed. This information was corroborated by the DOE through the document “Proforma Invoice” issued by Landtech. In order to confirm the same the assessment team has reviewed the following documents:

- Proforma invoice, (Purchase order of equipment to be used), IRL #14

Additionally the assessment team cross checked this information with the documentation above mentioned and interviews performed during the visit on-site to the personal involved in the project implementation.

The starting date is determined to be 05/06/2008, which is after the GSP 02/04/2008; therefore it is confirmed that the project complies with this requirement.

The original documentation presented has been reviewed and cross checked based on interviews with Alfonso Martínez from Promotora Ambiental de la Laguna S.A. de CV, hence the document can be considered appropriate to confirm the prior consideration. Additionally in order to confirm that the PP have taken real actions to continue the activity as CDM, following timeline has been reviewed against the respective documents presented in the table below:

Activity	Document	Auditor conclusion
May 25 <sup>th</sup> , 2007: The municipality of Culiacan, put out a tender for the development of the CDM project activity for the closure of the Culiacan Northern Landfill	“Convocatoria_Culiacan.pdf” (IRL #19)	In this document it is clearly stated that the Municipality of Culiacan decided that the project activity will only be developed under CDM.
September 21 <sup>st</sup> , 2007: Promotora Ambiental de la Laguna S.A de C.V. signed the concession contract with Culiacan Municipality.	“Contrato Biogas Culiacán.pdf” (IRL #20)	Promotora Ambiental de la Laguna S.A. de C.V. won the tender. This contract is for the development of the project exclusively under the CDM scheme, taking into account the future submission and approval of the project by the United Nations to obtain the certified emission reductions (CERs) and start obtaining all the required permits and authorizations for the project development. This



		agreement was not fixed as the starting date of the project activity, since it will only be applicable if the project implementation success.
October 26 <sup>th</sup> , 2007: Signature of the contract with the SCS Engineers	"PASA - SCS- Contract Signature Page 10-26-07.pdf" (IRL #21)	With this SCS professional services are required for the development of the project activity.
November 30 <sup>th</sup> , 2007: A meeting was carried out	List of assistance (IRL #17)	Relevant authorities were consulted before the publication of the PDD.
June 5 <sup>th</sup> , 2008: Date of the Proforma Invoice from Landtec (technology provider) with the purchase orders for the equipment required for the project implementation	Proforma invoice (IRL #14)	This activity has been fixed as the project activity starting date, because this represents a real action for the implementation of the proposed CDM project activity.

Hence the project complies with the requirements to demonstrate the prior consideration of the CDM.

### 3.6.2 Identification of alternatives

The output of the project is to produce electricity and the avoidance of methane emissions.

The list of alternatives to supply the outputs mentioned above, which is presented in the PDD includes the project activity undertaken without being registered as CDM project. The rest of the alternatives presented do include all plausible scenarios taking into account the local and sectoral situations for the outputs mentioned. Hence the list of alternatives is considered to be complete.

### 3.6.3 Investment analysis

The PP uses the investment analysis to demonstrate the additionality:

The financial return of the proposed project is insufficient to justify the investment. This can be confirmed due, to the most likely alternative to the project is to simply not install flaring and generation equipment at the site, i.e., the alternative does not involve investments of a similar scale to the project. Additionally taken into account the costs associated with the project it can be confirmed that the baseline is less costly than the proposed CDM project activity.

The parameters used in the financial calculations have been validated based on a revision of the sources presented in the PDD, inter alia: (INVESTMENT, Equipment Costs, Cost and Expenses, Cash flow, CERs; Interest Rates, Electricity Production, O&M, etc.



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- Financial Analysis: calculation of project IRR with and without CDM incentives, meeting benchmark values and sensitivity analysis (IRL #12);
- Information regarding Treasury Bonds from the government and country risk rate for Mexico, the first issued by Mexico's National Bank (Banxico) and the last one issued by the Organization for Economic Co-operation and Development (OECD). (IRL #13);
- Proforma invoice (Purchase order of equipment to be installed) with Landtech signed on June 5<sup>th</sup>, 2008 (IRL #14);
- Complete Culiacan Landfill Design Report issued by SCS Engineers in which part of the investment to be done is described (IRL #18);
- Annual 2007 electricity price issued by CFE (National Energy Minister) (IRL #22);
- Currency exchange during 2007 issued by SAT (Treasury Ministry in Mexico) (IRL #23);
- PASA costs (Resume of the investment required to install the project) presented by Promotora Ambiental de la Laguna SA de CV dated May 25<sup>th</sup>, 2007 (IRL #24);
- Operating costs of electric projects measured by SCS Engineers. (IRL #25);
- Income Tax Law issued by Mexican Government (IRL #29);
- Inflation rates in Mexico, issue by Banxico (IRL #30).
- Project IRR calculation to demonstrate IRR the PP showed the files Cash\_Flow "Culiacan\_CO2GSI\_v4\_V4", Cash flow\_Culiacan\_CO2GSI\_v4\_benchmark", Cash Flow\_Culiacan\_CO2GSI\_v4\_sensitivity" (Reference List No.12) in which calculations are based on electricity revenues, CERs revenues, investment, Operation expenses and amount of LFG captured.

The electricity price per kWh was based on the historical average value from Annual Report 2007 electricity price issued by CFE (National Energy Minister) (IRL #22). The DOE validated based of the information provided by Energy Ministry in Mexico [http://www.sener.gob.mx/webSener/res/PE\\_y\\_DT/ee/Precios\\_Medios1.xls](http://www.sener.gob.mx/webSener/res/PE_y_DT/ee/Precios_Medios1.xls). The electricity price was settled based on the "SECTOR ELECTRICICO NACIONAL 2007" for Mexico, assuming a base electricity price of 0.9068 pesos / kWh based in the Industry Sector for this year according the definitions stated in the "Ley del Servicio Público de Energía Eléctrica" No. DOF 22-12-1993 (Electrical Energy Public Service Law), but also taking into account the inflation rate in Mexico (Inflation rates in Mexico, issued by Banxico (IRL #30).

On this regards, the value used has been considered correct taking into account the source used, the country expertise of the validation team and making a cross-checked with the public available information for similar projects in the country. In general, all projects already registered (registration number 1920, 1123, 1240, 1307) used an electricity tariff below the one used by the PP providing the validation team enough information in order to have a positive conclusion regarding the value used.

The investment cost, including the equipment costs, was provided with the technical information of the equipment to be used in a document prepared SCS Energy with the document "Complete Culiacan Landfill Design Report.pdf" Complete Culiacan Landfill Design Report issued by SCS Engineers in which part of the investment to be done is described (IRL #18), together with the Proforma invoice (Purchase order of equipment to be installed)



with Landtech signed on June 5th, 2008 (IRL #14). The investment costs used for calculation purposes can be considered correct.

The Operational Expenditures (OPEX) which include operational and maintenance cost are assessed through the Operating costs of electric projects submitted by SCS Engineers (IRL # 25). Furthermore the total O&M costs are about 10,5% of the total investment, which can be considered applicable based on the expertise of the audit team on similar projects in the host country. The same that were confirmed verbally on-site, furthermore the period of time between the finalization of the agreement and the investment decision is only 3 months therefore it can be confirmed that it is unlikely that the input values have materially changed. Furthermore based on a cross check between the mentioned documents, it can be seen that the parameters are plausible and can be considered acceptable under the project situation.

The benchmark used for the financial comparison has been obtained from the Government Bond rates (CETES at 364 days are set at 7.4%) plus a risk premium set by the OECD for Mexico at 2.00%. The benchmark IRR is set at least at 9.4% (IRL #13). This value has been checked against the provided sources. Hence it can be confirmed that the benchmark used is adequate for this project.

The "Tool for the demonstration and assessment for additionality" requires that a sensitivity analysis is conducted to check whether the financial attractiveness remains unchanged for reasonable variations in the critical assumptions.

The following parameters are selected to be the critical assumptions fluctuating in the range of - 10%~10%:

- Investment cost: Increasing the total investment cost leads the IRR to 1.1%, while decreasing the variable sets IRR at 3.4%.
- Energy Prices: when energy prices are raised the IRR reaches 4.4%; when the prices are lower the IRR decreases at -0.7%.
- Operational and Maintenance cost: if the O&M costs are higher, the IRR would be set at 1.2%, while the decreasing of these costs would lead the IRR to 3.2%.
- Amount of electricity generated: the increment or reduction of this variable sets IRR as 4.4% and -0.7%, respectively.

In accordance with the Guidance on the Assessment of Investment Analysis all parameters need to necessarily be subject to both negative and positive variations of the same magnitude. Thus the result and variation were presented in the PDD and are reproducible with the spreadsheets IRL (# 12).

In the sensitivity analysis test, variation of  $\pm 10\%$  has been considered and the project IRR remains lower than the benchmark value (9.4%). Thus it deems reasonable to use the applied variables, they present well realistic variations of these key parameters. To conclude the sensitivity analysis it can be stated that none of the variation of financial input values would result in an increase of the IRR that makes the project cross the benchmark.

Therefore it is not feasible for an enterprise the construction and operation of a landfill gas to energy project. Consequently, the Project cannot be considered as financially attractive without CDM revenues.

We thus conclude the project is financially unattractive without CER revenues. The investment analysis compares the internal rate of return (IRR) of the project with the benchmark.



As assumptions presented in the financial analysis inter alia Analysis with and without CDM incentives, Analysis of values meeting benchmark, sensitivity analysis of variable, CETES rates and premium risk rate in Mexico, have been also reviewed and were find appropriate based on (IRL #12) and (IRL #13). It is also checked that the life time and tax (IRL #29) presented in the financial analysis are plausible and appropriate. Hence it can be confirmed that the underlying assumptions are appropriate for this project.

The financial calculation has been completely checked, all the calculation files were checked and no mistakes have been found. Hence it can be confirmed that the calculations are correct.

### **3.6.4 Barrier analysis**

The project participant has not developed the barrier analysis.

### **3.6.5 Common practice analysis**

The region for the common practice analysis has been defined as the whole host Country Mexico: The SIMEPRODESO landfill project was financed through a GEF grant. There are a few projects of gas collection and flaring or use currently under development in Mexico and all these projects are being presented under the CDM.

The assessment team has revised that existing Landfills in Mexico (besides from those developed under CDM) do not prevent the atmospheric venting of the methane gas. SEMARNAT, through the program “Mexico Limpio” (Clean Mexico) assessed the problematic of the landfills. Please refer to the link <http://mexicolimpio.semarnat.gob.mx/apoyomunicipios/introduccion.php>, in which it is stated that the Municipalities are in charge of the waste disposal, nevertheless the lack of capacity to get credits granted is a barrier to control the management of the waste and its effects, because they are not able to financing environmental projects (IRL #31).

The table 1 of the PDD represents the list of the existing landfill in Mexico. This information confirms that the list of similar projects presented in the PDD is complete. Additionally the team made a further cross check of the information based on the interviews.

Hence it can be confirmed that the proposed CDM activity is not a common practice in the defined region.

## **3.7 Monitoring plan**

The monitoring plan presented in the PDD complies with the requirement of the methodology. The assessment team has checked all the parameters presented in the monitoring plan against the requirements of the methodology; no deviations relevant for the project activity have been found in the plan.

The procedures have been revised by the assessment team through document review and interviews with the relevant personnel; this information together with a physical inspection allows the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The major parameters to be monitored have been discussed with the PPs especially regarding the data management and in general the quality assurance and quality control procedures to be implemented in the context of the project:

1. Total amount of landfill gas captured (LFG<sub>total,y</sub>), measured continuously by a continuous flow meter and recorded at least once per hour. The flow meter is located upstream from the flare inlet providing measured flow rate values as required by





methodology. Methane fraction of the landfill gas and LFG flow will be measured on same basis. Data to be aggregated monthly and yearly.

2. Total amount of landfill gas flared (LFGflare,y), measured by a continuous flow meter located at the upstream inlet of the flare and recorded at least once per hour. Data to be aggregated yearly.
3. Total landfill gas used for electricity generation (LFGelectricity,y), measured by a continuous flow meter and recorded at least once per hour. The flow meter is located upstream from the flare inlet providing measured flow rate values as required by methodology. Data to be aggregated monthly and yearly.
4. Methane fraction contained in the landfill gas (wCH<sub>4</sub>,y), a continuous analyzer will be used and data will be recorded once per hour. Methane fraction of the landfill gas and LFG flow will be measured on same basis.
5. Project emissions from flaring of the residual gas stream (PEflare,y), together with the parameters:
6. Volumetric flow rate of the residual gas in a dry basis at normal conditions in the hour  $h$ . (FV<sub>RG,h</sub>),
7. Volumetric fraction of component in the residual gas in the hour  $h$  (fvi,h),
8. Volumetric fraction of O<sub>2</sub> in the exhaust gas of the flare in the hour  $h$  (tO<sub>2</sub>,h),
9. Concentration of methane in the exhaust gas of the flare in dry basis at normal conditions in the hour  $h$  (fvCH<sub>4</sub>,FG,h),
10. Temperature in the exhaust gas of the flare. (Tflare), and
11. Flare efficiency ( $\eta_{\text{flare},h}$ ) will be measured/calculated according to the “Tool to determine project emissions from flaring gases containing methane”.
12. Amount of methane generated during year  $y$  of the project activity (MGPRy) measured through the Automated system for Monitoring extraction of gas.
13. Temperature of the landfill gas (T), measured at least once per hour.
14. Pressure of landfill gas (P), measured at least once per hour,
15. Net quantity of electricity produced with landfill gas during year  $y$ , (ELLFG,y) will be measured with an electricity meter and recorded at least once per hour.
16. Hours of operation of the electrical energy plant, data obtained from the daily records
17. Operation of the flare station, measurement will be made by a run meter connected to the blower
18. Project emissions from electricity consumption by the project activity during the year  $y$  (PEEC,y).
19. Project emissions from fossil fuel combustion in process  $j$  during the year  $y$ . (PEFC,j,y)
20. On-site consumption of electricity provided by the grid and attributable to the project activity during the year  $y$  (EC<sub>PJ,y</sub>)
21. Average technical transmission and distribution losses in the grid in year  $y$  for the voltage level at which electricity is obtained from the grid at the project site. (TDLy)
22. Total amount of fossil fuel required to meet project requirement (ETPR)
23. CO<sub>2</sub> emission coefficient of fuel type  $i$  in year  $y$  (COEF<sub>i,y</sub>)
24. CO<sub>2</sub> emission factor of fossil fuel (EF<sub>fuel,PR,y</sub>)

Hence it is expected that the PPs will be able to implement the monitoring plan and the emission reductions achieved can be reported ex-post and verified.

### 3.8 Sustainable development

The LoA of the Host country clearly presents a statement that the project contributes to the sustainable development of the host Party.



### 3.9 Local stakeholder consultation

The relevant local stakeholders have been invited via e-mail and through calls a few days before the consultation which took place on 30/11/2007. The evidence of these invitations is IRL #17. The assessment team has reviewed the documentation in order to validate the inclusion of relevant stakeholders and using the local expertise it can be confirmed that the communication method used to invite the stakeholders can be considered appropriate. The summary of comments presented in the PDD has been cross checked with the documentation of the stakeholder consultation and it is found to be complete.

The relevant comments presented by the local stakeholders have been taken due account by the PP, the same has been cross checked with the information obtained during the interviews.

Hence the local stakeholder consultation has been adequately performed according to the CDM requirements.

### 3.10 Environmental impacts

The project participants undertook an analysis of environmental impacts. The assessment team made a document review of the information presented. The IRL #9 (Environmental Impact Assessment exemption) indicated that for this kind of projects an environmental impact assessment is not required.

#### **Further Issues:**

Regarding the request for registration of CDM project activity, an incomplete has raised for the project activity on March 11, 2010 with following requests:

**Issue 1:** The DOE/PP is requested to provide more information about the concession contract signed in September 2007 and clarify how it has validated the starting date as per "CDM glossary of terms".

#### **Response by DOE/PP:**

As was mentioned in the table stated in section 3.6.1 of this report the Concession Contract can not be considered as the Starting Date of the Project activity, since it is in the same Contract where it is considered the dependency of the registration of the Project as a CDM in order to 1) implement it and 2) accomplish all the obligations contracted by both Parts (because if not, the project activity implementation can be subsequently ceased, as a matter of non-fulfilment of the terms).

- June 5th, 2008: Date of the Proforma Invoice from Landtec (technology provider) with the purchase orders for the equipment required for the project implementation (This date has been fixed selected as the project activity starting date, because this represents a real action for the implementation of the proposed CDM project activity).

**Issue 2:** The DOE is required to further describe in detail how the parameters used in any financial calculations have been validated, including investment, equipment costs, electricity price, cost and expenses and contingencies, in line with VVM v01, para 109 (a) - (c) and para. 112 (a).

#### **Response by DOE:**

Further information has been included in section 3.6.3 of the investment analysis how the parameter used in the financial calculation were validated by the audit team.





**Issue 3:** The DOE should assess the sensitivity analysis to determine under what conditions variations in the result would occur, and the likelihood of these conditions, in line with VVM v01, para.109 (e).

Response by DOE:

The DOE has included in section 3.6.3 of the investment analysis the method assessment and the conclusion the audit team.

**Issue 4:** The DOE should describe in detail how CL No.4 was closed, especially how it has validated PP's responses for further request 3&4, in line with VVM v01, para 39.

Response by DOE/PP:

More details have been included in the conclusion from the audit team for further request 3&4. In accordance with VVM v01, paragraph 39 the response has a clear reference regarding all the changes performed in the PDD with their supporting annexes.

**Issue 5:** .The DOE/PP is requested to fill the cell of Geo-coordinates in the view page.

Response by DOE/PP:

The Goe-coordinates were already included in the PDD and Validation Report and will be included in the view page of the UNFCCC platform.

**Issue 6:** PDD page 86 should not be in blank.

Response by DOE/PP:

The PDD has been amended by the PP.

**Issue 7:** Please provide confirmation that the project participants will not commence the crediting period prior to the date of registration.

Response by DOE/PP:

The confirmation has been included by the PP in the PDD, where is clearly stated that the crediting period will no commence earlier than registration.

The revised validation report including the requested additional information is presented herewith.

A second "incomplete" request was raised for the project documentation on March 24, 2010 with following issues:

1. The DOE is requested to describe how "Contingencies" used in the financial calculations have been validated, in line with VVM v01, para.109(a)-(c)and para.112(a).

Response by DOE:

The parameters used in the financial calculations have been validated based on a revision of the sources presented in the PDD. The parameter contingencies was provided with the document "Complete Culiacan Landfill Design Report.pdf" prepared by SCS Energy (IRL #18). The contingencies are defined as 10% of the maintenance costs, not including the investment. The value can be considered correct, based on technical expertise and cross check with literature reference (IRL 32) where is clear that "15-20% should be applied if the process information is firm". This support the issue that the value used for the IRR calculations of the project activity can be considered correct and conservative.

The period of time between the finalization of the FSR (Final Design Report of SCS) and the investment decision is only six months therefore it can be confirmed that it is unlikely that the input values have materially changed. Furthermore the impact of the IRR in the



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project without CERs, for the concept of "Contingencies" is  **$\pm 0.9\%$**  approximately, thus it will not affect or change the argumentation for the additionality of the project.

The parameter is plausible and can be considered acceptable under the project situation.

2. The DOE is requested to fill the cell of Geo-coordinates in the view page.

Response by DOE:

The GOE-coordinates will be included in the view page of the UNFCCC platform.



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## 4 COMMENTS BY PARTIES, STAKEHOLDERS AND NGOS

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

The following table presents all key information on this process:

<b>webpage:</b>	
<a href="http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=5267&amp;Ebene1_ID=26&amp;Ebene2_ID=1425&amp;mode=1">http://www.netinform.de/KE/Wegweiser/Guide2_1.aspx?ID=5267&amp;Ebene1_ID=26&amp;Ebene2_ID=1425&amp;mode=1</a>	
<b>Starting date of the global stakeholder consultation process:</b>	
2008-04-02	
<b>Comment submitted by:</b>	<b>Issues raised:</b>
No comments were received	-
<b>Response by TÜV SÜD:</b>	
-	



## 5 VALIDATION OPINION

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

Culiacan Northern Landfill Gas Project

Standard auditing techniques have been used for the validation of the project. A methodology-specific protocol customised for the project has been prepared to carry out the audit and present the outcome in a transparent and comprehensive manner.

The review of the project design documentation, the subsequent follow-up interviews and the further cross check of references have provided TÜV SÜD with sufficient evidence to determine the fulfilment of stated criteria in the protocol. 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 following the VVM requirements. The only purpose of this report is its use during the registration process as part of the CDM project cycle. Hence, TÜV SÜD cannot be held liable by any party for decisions made or not made based on the validation opinion, which will go beyond that purpose.

Munich, 07-07-2010

A handwritten signature in black ink, appearing to read 'Cuiyun Zhang'.

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

Munich, 07-07-2010

A handwritten signature in black ink, appearing to read 'Pavlos Lantos'.

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Assessment Team Leader

Validation of the CDM Project:  
Culiacan Northern Landfill Gas Project



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## **Annex 1: Validation Protocol**

# Validation Protocol

Project Title: Culiacan Northern Landfill Gas Project

Date of Completion: 07/07/2010

Number of Pages: 74



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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
<b>A. General description of project activity</b>				
<b>A.1. Title of the project activity</b>				
A.1.1. Does the used project title clearly enable to identify the unique CDM activity?	7	Yes, the project title clearly identifies the location and kind of project 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?	1, 26	Yes, the last revision number and date of the PDD is posted on the section A.1. <b><u>Corrective Action Request No.1.</u></b> The format of the date should include dd/mm/yyyy, please correct it in the PDD	<b>CAR</b>	<input checked="" type="checkbox"/>
A.1.3. Is this consistent with the time line of the project's history?	6,14,	Yes, the date of the revision is consistent with the time line of the project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.2. Description of the project activity</b>				
A.2.1. Is the description delivering a transparent overview of the project activities?	5	Yes, the description delivering a transparent overview of the project activities. The baseline scenario is a landfill venting of the methane to the atmosphere, The project activity will help reducing gas emissions through the capture, flaring and combustion of the biogas.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.2.2. What proofs are available demonstrating that the project description is in compliance with the actual situation or planning?	5, 15, 26	According to the visit on-site could be corroborated that currently landfill is venting methane to the atmosphere as baseline scenario and the project planning has been demonstrated accordance to the Culiacan Schedule (IRL 6.). <b><u>Corrective Action Request No.2.</u></b> Please correct in the PDD: 1- The tonnes of waste received by the project landfill as mentioned during the on-site visit.	<b>CAR</b>	<input checked="" type="checkbox"/>

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		2- The total number of cells to be included in the future and include them in the calculations as commented in the visit. 3- The stages regarding the flare and the electricity generation as commented in the visit.		
A.2.3. Is the information provided by these proofs consistent with the information provided by the PDD?	5, 15, 26	See CAR above.	OPEN	<input checked="" type="checkbox"/>
A.2.4. Is all information presented consistent with details provided by further chapters of the PDD?	1	Yes, the information is consistent with other chapters in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.3. Project participants</b>				
A.3.1. Is the form required for the indication of project participants correctly applied?	1	Yes, the correct form is 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?	4, 7, 28	<b><u>Corrective Action Request No.3.</u></b> The project participants mentioned in the approval letter are not consistent with the project participants mentioned in the PDD. Please correct as necessary.	CAR	<input checked="" type="checkbox"/>
A.3.3. Is all information on participants / Parties provided in consistency with details provided by further chapters of the PDD (in particular annex 1)?	1	Yes, the information is consistent.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4. Technical description of the project activity</b>				
<i>A.4.1. Location of the project activity</i>				
A.4.1.1. Does the information provided on the	5	Yes, the information of the location of the project activity is clear.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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location of the project activity allow for a clear identification of the site(s)?				
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.)?	20	At the visit on site the project participants presented a contract between PALA and Culiacan municipality to manage the landfill during the project life time.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.2. Category(ies) of project activity</b>				
A.4.2.1. To which category(ies) does the project activity belonging to? Is the category correctly identified and indicated?	2	Sectoral scope 13: Waste handling and disposal Sectoral scope 1: Energy industries Yes, it is clearly indicated in section A.4.2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>A.4.3. Technology to be employed by the project activity</b>				
A.4.3.1. Does the technical design of the project activity reflect current good practices?	1	Yes, the project activity fulfils with the statements of good practices, nevertheless the Mexican law do not obliges to capture and destroy of methane in landfills	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.2. Does the description of the technology to be applied provide sufficient and transparent input/ information to evaluate its impact on the greenhouse gas balance?	10, 26	<b><u>Corrective Action Request No.4.</u></b> Regarding the technology to be applied, please include in the PDD: <ul style="list-style-type: none"> <li>- The equipment that would be used to produce energy.</li> <li>- Please update to the latest PDD guidelines</li> </ul>	<b>CAR</b>	<input checked="" type="checkbox"/>
A.4.3.3. Does the implementation of the project activity require any technology transfer from annex-I-countries to the host country(ies)?	10	Yes the know how and the technology to manage the waste will be improved trough the project developed by the American firma SCS Engineers company.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.4. Is the technology implemented by the project activity environmentally safe?	10	Yes, as the technology to be applied does not result in project emissions.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.5. Is the information provided in compli-	10	Yes, the information provided is in compliance with the actual	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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ance with actual situation or planning?		situation.		
A.4.3.6. Does the project use state of the art technology and / or does the technology result in a significantly better performance than any commonly used technologies in the host country?	10	Yes, the technology result in a significantly better performance than any commonly used technologies in the host country.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.7. Is the project technology likely to be substituted by other or more efficient technologies within the project period?	10	No, the technology to be applied is new and will not be substituted within the project's lifetime.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.3.8. Does the project require extensive initial training and maintenance efforts in order to be carried out as scheduled during the project period?	6	Please include in the project schedule the training program as required in CR1.	OPEN	<input checked="" type="checkbox"/>
A.4.3.9. Is information available on the demand and requirements for training and maintenance?	6	No, see comment above	OPEN	<input checked="" type="checkbox"/>
A.4.3.10. Is a schedule available for the implementation of the project and are there any risks for delays?	6	<b>Clarification Request No. 1.</b> Please submit a schedule for the implementation of the project to the DOE including the training program.	CR	<input checked="" type="checkbox"/>
<i>A.4.4. Estimated amount of emission reductions over the chosen crediting period</i>				
A.4.4.1. Is the form required for the indication of projected emission reductions correctly applied?	1	Yes, the format is correctly applied.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.4.2. Are the figures provided consistent with other data presented in the PDD?	11, 26	<b>Corrective Action Request No.5.</b> Please correct the annual estimation of emission reductions in section A.4.4 in the PDD.	CAR	<input checked="" type="checkbox"/>

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<b>A.4.5. Public funding of the project activity</b>				
A.4.5.1. Is the information provided on public funding provided in compliance with the actual situation or planning as available by the project participants?	1	Yes, as there is no public founding for this project.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
A.4.5.2. Is all information provided consistent with the details given in remaining chapters of the PDD (in particular annex 2)?	1	Yes, chapters in the PDD are consistent.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B. Application of a baseline and monitoring methodology</b>				
<b>B.1. Title and reference of the approved baseline and monitoring methodology</b>				
B.1.1.1. Are reference number, version number, and title of the baseline and monitoring methodology clearly indicated?	2,3	Yes, all information concerning methodology and tools to be used is mentioned in section B.1.	<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 applicable?	2	Yes, the PDD has been updated to the most recent version.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>B.2. Justification of the choice of the methodology and why it is applicable to the project activity</b>				
B.2.1.1. Is the applied methodology considered the most appropriate one?	2	Yes, at it considers landfill gas and electricity generation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.2.2. Criteria 1: Is applicable to landfill gas capture project activities.	2	Applicability checklist	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		Criterion discussed in the PDD?		
		Compliance provable?		
		Compliance verified?		

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B.2.3. Criteria 2: applicable where the base-line scenario is the partial total atmospheric release of the gas.	2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr></table>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Compliance verified?	Yes													
B.2.4. Criteria 3: the gas and the project activities include situations such as:  a) The captured gas is flared; or  b) The captured gas is used to produce energy (e.g. electricity/thermal energy).  c) The capture gas is used to supply consumer through natural gas distribution network. If emissions reductions are claimed for displacing natural gas, project activities may use approval methodology AM0053.	2	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>Yes</td></tr><tr><td>Compliance provable?</td><td>Yes</td></tr><tr><td>Compliance verified?</td><td>Yes</td></tr><tr><td>Is the option correctly presented and confirmed?*</td><td>Yes</td></tr></table>  Situation a) and b)	Applicability checklist	Yes / No	Criterion discussed in the PDD?	Yes	Compliance provable?	Yes	Compliance verified?	Yes	Is the option correctly presented and confirmed?*	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No													
Criterion discussed in the PDD?	Yes													
Compliance provable?	Yes													
Compliance verified?	Yes													
Is the option correctly presented and confirmed?*	Yes													
B.3. Description of the sources and gases included in the project boundary														
Integrate the required amount of sub-checklists for sources and gases as given by the methodology applied and comment on at least every line answered with “No”														
B.3.1. Source:  Possible CH <sub>4</sub> emissions from decomposition of waste at the landfill site	2	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Boundary checklist	Yes / No													
Source and gas(es) discussed in the PDD?	Yes													

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Description of Source Gas(es): CH <sub>4</sub> Type: Baseline Emissions		Inclusion / exclusion justified?	Yes		
		Explanation / Justification sufficient?	Yes		
		Consistency with monitoring plan?	NA		
B.3.2. Source: Possible CO <sub>2</sub> emissions from electricity consumption  Description of Source Gas(es): CO <sub>2</sub> Type: Baseline Emissions	2			☑	☑
		Boundary checklist	Yes / No		
		Source and gas(es) discussed in the PDD?	Yes		
		Inclusion / exclusion justified?	Yes		
		Explanation / Justification sufficient?	Yes		
Consistency with monitoring plan?	Yes				
B.3.3. Source: Possible CO <sub>2</sub> emissions from thermal energy generation  Description of Source Gas(es): CO <sub>2</sub> Type: Baseline Emissions	2			☑	☑
		Boundary checklist	Yes / No		
		Source and gas(es) discussed in the PDD?	NA		
		Inclusion / exclusion justified?	NA		
		Explanation / Justification sufficient?	NA		
Consistency with monitoring plan?	NA				
B.3.4. Source: Possible CO <sub>2</sub> emissions from on-site fossil fuel consumption due to the project activity other than for electricity generation  Description of Source Gas(es): CO <sub>2</sub> Type: Project Activity Emissions	2			☑	☑
		Boundary checklist	Yes / No		
		Source and gas(es) discussed in the PDD?	Yes		
		Inclusion / exclusion justified?	Yes		
		Explanation / Justification sufficient?	Yes		
Consistency with monitoring plan?	Yes				
B.3.5. Source: Possible CO <sub>2</sub> emissions from on-site electricity use.	2			☑	☑
		Boundary checklist	Yes / No		

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Description of Source Gas(es): CO <sub>2</sub> Type: Project Activity Emissions		Source and gas(es) discussed in the PDD?	Yes												
		Inclusion / exclusion justified?	Yes												
		Explanation / Justification sufficient?	Yes												
		Consistency with monitoring plan?	Yes												
B.3.6. Source: Possible CH <sub>4</sub> emissions from active LFG capture and flaring  Description of Source Gas(es): CH <sub>4</sub> Type: Project Activity Emissions	2	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Source and gas(es) discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table> <p>The description of source gas(es): CH<sub>4</sub> has been indentified in accordance with the methodology ACM 00001.</p> <p><b>Clarification Request No. 2.</b></p> <p>Please clarify and correct as needed whether the project activity CO<sub>2</sub> and the CH<sub>4</sub> due to LFG combustion for power generation will be included or not in section B.3 in the PDD, please include into the project boundary.</p>		Boundary checklist	Yes / No	Source and gas(es) discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	CR	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Source and gas(es) discussed in the PDD?	Yes														
Inclusion / exclusion justified?	Yes														
Explanation / Justification sufficient?	Yes														
Consistency with monitoring plan?	Yes														
B.3.7. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	2,5	Yes, the spatial and technological boundaries comply with the discussion provided by the PDD.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
B.4. Description of how the baseline scenario is identified and description of the identified baseline scenario															
B.4.1. Is it clearly described that the baseline is the atmospheric release of the gas and the baseline methodology considers that some of the methane generated by the landfill may be captured and destroyed?	5	Yes, the baseline scenario is clearly described (continued release of the LFG to the atmosphere). The project activity will result in the captured, flared and combusted LFG.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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B.4.2. Does the project identify correctly and exclude those options not in line with regulatory or legal requirements?	10	Yes, since in Mexico there are no regulations or incentives to capture and flare or for utilization of the LFG, the continuation of release of the LFG to the atmosphere is the common practice. The PDD explains in a clear and complete manner this issue.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.4.3. Is correctly described the situation about the requirement from the authority about the capture and destruction/utilization of the gas produced in the landfill?	5, 27	Yes, in Mexico there are no regulations or incentives to capture and flare or for utilization of the LFG to produce power due to isolation of the project sites. <b><u>Clarification Request No. 3.</u></b> As seen on-site, currently there isn't any capture and/or burn of the LFG. The PP explained to the auditor team that the PDD is addressing a mistake regarding the actual situation, when the visit on-site was made this information was corroborated. Please correct in the PDD page 12, which implies some limited LFG burning.	CR	<input checked="" type="checkbox"/>
<b>B.5. Description of how the anthropogenic emissions of GHG by sources are reduced below those that would have occurred in the absence of the registered CDM project activity (assessment and demonstration of additionality):</b>				
B.5.1. In case of applying step 2 / investment analysis of the additionality tool: Is the analysis method identified appropriately (step 2a)?	3	Yes the benchmark analysis is appropriate.	<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	<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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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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)?	12 13, 18, 21, 23, 24, 25, 29, 30	Yes, the IRR of the project is compared to government bonds rate (7.4%) plus a risk premium (2.00%) which is the interest rate, this is a benchmark IRR of 9.4% for similar projects	<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?	1	Yes both alternatives were correctly done.	<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 manner including publicly available proofs for the utilized data?	12 13, 18, 21, 23, 24, 25, 29, 30	Yes the financial indicators was made publicly. Data such as electricity prices and costs, currency exchange, investment costs, operation and maintenance costs are showed in the financial Analysis (IRL 12).	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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?	12 13, 18, 21, 23,	<b><u>Clarification Request No. 4.</u></b> Please clarify if the calculation of investment costs includes the carbon credit revenues. Please sent to the DOE the excel spread sheet with the calculations of IRR.	CR	<input checked="" type="checkbox"/>

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	24, 25, 29, 30			
B.5.8. In case of applying step 3 (barrier analysis): Is transparent and documented evidence provided on the existence and significance of these barriers?	1	NA	<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?	1	NA	<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)?	1	Yes is documented in the PDD, nevertheless a complete assessment of the projects not under CDM is required. Please see CR4		
B.5.11. If similar activities are occurring: Is it demonstrated that in spite of these similarities the project activity would not be implemented without the CDM component (step 4b)?	1	Similar projects are currently in Mexico financed through the climate change mitigation resources. Please refer to CR4	<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 hurdles or other identified barriers (step 5)?	12 13, 18, 21, 23, 24, 25, 29,	Yes the project cannot be considered as financially attractive without CDM revenues.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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	30			
<b>B.6. Emissions reductions including parameters of “tool to determine methane emissions avoided from disposal of waste at a waste disposal” and “Tool to calculate project or leakage emissions from fossil fuel combustion”</b>				
<i>B.6.1. Explanation of methodological choices</i>				
B.6.1.1. Is it explained how the procedures provided in the methodology are applied by the proposed project activity?	3,11, 26	<b><u>Corrective Action Request No.6.</u></b> In section B.6.1 in the PDD, a) Please include the formulae regarding the “tool to determine project emissions from flaring gases containing methane”. b) Please include the formulae regarding the “tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”. c) Please include the formulae regarding the “tool for calculation of emission factor for electricity systems”. d) Please include the formulae regarding the “tool for calculate project emissions from electricity consumption.	CAR	<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?	3, 11, 26	<b><u>Corrective Action Request No.7.</u></b> The first order decay model used in the PDD is US EPA model. The methodology implies the use of the “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”. Please correct the PDD with the correct model.	CAR	<input checked="" type="checkbox"/>
B.6.1.3. Are the formulae required for the determination of project emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	3,11, 26	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>
B.6.1.4. Are the formulae required for the de-	3,11,	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>

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termination of baseline emissions correctly presented, enabling a complete identification of parameter to be used and / or monitored?	26																					
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?	2	No leakage effects need to be accounted under this methodology.	☑	☑																		
B.6.1.6. Are the formulae required for the determination of emission reductions correctly presented?	11	Yes, emission reductions are correctly and completely presented.	☑	☑																		
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?	2,3, 26	<b>Corrective Action Request No.8.</b> Please include the missing parameters in section B.6.2 in the PDD.	CAR	☑																		
B.6.2.2. Parameter Title: Emission factor of the electricity and/or other energy.	2,8, 11, 26	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	CAR	☑
Data Checklist	Yes / No																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					
Appropriate description of parameter?	NA																					
Source clearly referenced?	NA																					
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					

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		<b><u>Corrective Action Request No.9.</u></b> Please correct the emission factor of the grid with the most up- dated information.																				
B.6.2.3.       Parameter Title: CEFelec,y,BL,y CO2 emissions intensity of the elec- tricity displaced		The CEFelectricity,y is calculated according to the “Tool to calcu- late the emission factor for an electricity system”.	☑	☑																		
B.6.2.4.       Parameter Title: CO2 emission intensity of the thermal energy	2	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	☑	☑
Data Checklist	Yes / No																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					
Appropriate description of parameter?	NA																					
Source clearly referenced?	NA																					
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					
B.6.2.5.       Parameter Title: Regulatory requirements relating to landfill gas project.	2	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	☑	☑												
Data Checklist	Yes / No																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					

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		Appropriate description of parameter?	NA																				
		Source clearly referenced?	NA																				
		Correct value provided?	NA																				
		Has this value been verified?	NA																				
		Choice of data correctly justified?	NA																				
		Measurement method correctly described?	NA																				
B.6.2.6.           Parameter Title: φ Model correction factor to account for model uncertainties  <i>Only valid when “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” is used</i>	2,3, 26	<table><tr><td>Data 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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> Please see Corrective Action Request No.8		Data 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?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	OPEN	<input checked="" type="checkbox"/>
Data 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?	No																						
Has this value been verified?	No																						
Choice of data correctly justified?	No																						
Measurement method correctly described?	No																						
B.6.2.7.           Parameter Title:  OX Oxidation factor	2,3, 26	<table><tr><td>Data Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>No</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	No	OPEN	<input checked="" type="checkbox"/>														
Data Checklist	Yes / No																						
Title in line with methodology?	No																						

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<i>Only valid when “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” is used</i>		Data unit correctly expressed?	No																				
		Appropriate description of parameter?	No																				
		Source clearly referenced?	No																				
		Correct value provided?	No																				
		Has this value been verified?	No																				
		Choice of data correctly justified?	No																				
		Measurement method correctly described?	No																				
		Please see Corrective Action Request No.8																					
B.6.2.8.      Parameter Title:  MCF   Methane correction factor  <i>Only valid when “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” is used</i>	2,3, 26	<table><tr><th>Data 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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> See Corrective Action Request No.8		Data 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?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	OPEN	<input checked="" type="checkbox"/>
Data 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?	No																						
Has this value been verified?	No																						
Choice of data correctly justified?	No																						
Measurement method correctly described?	No																						

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B.6.2.9. Parameter Title:  K <sub>j</sub> , Decay rate for the waste type <i>j</i> <i>Only valid when “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” is used</i>	2,3, 26	<table><tr><th>Data 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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> See Corrective Action Request No.8	Data 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?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	OPEN	<input checked="" type="checkbox"/>
Data 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?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
B.6.2.10. Parameter Title:  F, Fraction of methane in the SWDS gas <i>Only valid when “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site” is used</i>	2,3, 26	<table><tr><th>Data 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?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr></table>	Data 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?	No	Has this value been verified?	No	OPEN	<input checked="" type="checkbox"/>				
Data 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?	No																					
Has this value been verified?	No																					

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		<table><tr><td>Choice of data correctly justified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table>		Choice of data correctly justified?	No	Measurement method correctly described?	No																
Choice of data correctly justified?	No																						
Measurement method correctly described?	No																						
		See Corrective Action Request No.8																					
B.6.2.11.      Parameter Title:  GWPCH4, Global warming potential	2	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>		Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																						
Title in line with methodology?	Yes																						
Data unit correctly expressed?	Yes																						
Appropriate description of parameter?	Yes																						
Source clearly referenced?	Yes																						
Correct value provided?	Yes																						
Has this value been verified?	Yes																						
Choice of data correctly justified?	Yes																						
Measurement method correctly described?	Yes																						
B.6.2.12.      Parameter Title:  DCH4, Methane Density	2	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr></table>		Data Checklist	Yes / No	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																						
Title in line with methodology?	Yes																						
Data unit correctly expressed?	Yes																						
Appropriate description of parameter?	Yes																						



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		Source clearly referenced?	Yes																					
		Correct value provided?	Yes																					
		Has this value been verified?	Yes																					
		Choice of data correctly justified?	Yes																					
		Measurement method correctly described?	Yes																					
B.6.2.13. Parameter Title:  BECH4, SWDS,y, Methane generation from the land-fill in the absence of the project activity.	2,3, 11, 26	<table><tr><td>Data 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>No</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> See Corrective Action Request No.7			Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	No	Correct value provided?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	OPEN	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																							
Title in line with methodology?	Yes																							
Data unit correctly expressed?	Yes																							
Appropriate description of parameter?	Yes																							
Source clearly referenced?	No																							
Correct value provided?	No																							
Has this value been verified?	No																							
Choice of data correctly justified?	No																							
Measurement method correctly described?	No																							
B.6.2.14. Parameter Title:  DOCf Fraction of degradable organic carbon (DOC)		Yes the parameter has been correctly applied, in accordance with the IPCC 2006 Guidelines for National Greenhouse Gas Inventories.			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																		

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that can decompose				
B.6.2.15. Parameter Title:  DOCj Fraction of degradable organic carbon (by weight) in the waste <i>type j</i>		Yes the parameter has been correctly applied, in accordance with the IPCC 2006 Guidelines for National Greenhouse Gas Inventories.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<i>B.6.3. Ex-ante calculation of emission reductions</i>				
B.6.3.1. Is the projection based on the same procedures as used for future monitoring?	3	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>
B.6.3.2. Are the GHG calculations documented in a complete and transparent manner?	3	Please see above.	OPEN	<input checked="" type="checkbox"/>
B.6.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	3	Please see above.	OPEN	<input checked="" type="checkbox"/>
<i>B.6.4. Summary of the ex-ante estimation of emission reductions</i>				
B.6.4.1. Will the project result in fewer GHG emissions than the baseline scenario?	11	Yes, the project activity represents a significant amount of emission reduction in comparison with the baseline scenario.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.2. Is the form/table required for the indication of projected emission reductions correctly applied?	11	Yes the table is shown in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.3. Is the projection in line with the envisioned time schedule for the project's implementation and the indicated crediting period?	6,11	Yes. Timeline is consistent within the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.6.4.4. Is the data provided in this section in consistency with data as presented in other	3,11, 26	<b><u>Corrective Action Request No.10.</u></b> The data is consistent with other chapters of the PDD, neverthe-	CAR	<input checked="" type="checkbox"/>

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chapters of the PDD?		less please correct it according to the tools.																				
B.7. Application of the monitoring methodology and description of the monitoring plan																						
B.7.1. Data and parameters monitored																						
B.7.1.1. Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied methodology?	2,3	<b><u>Corrective Action Request No.11.</u></b> Please include the missing parameters in section B.7.1 in the PDD.	CAR	<input checked="" type="checkbox"/>																		
B.7.1.2. Parameter Title:  LFGtotal,y  Total amount of landfill gas captured at Normal Temperature and Pressure	2	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described? Methane fraction of the landfill gas and LFG flow have to be measured on same basis (either wet or dry).</td><td>Yes</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described? Methane fraction of the landfill gas and LFG flow have to be measured on same basis (either wet or dry).	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described? Methane fraction of the landfill gas and LFG flow have to be measured on same basis (either wet or dry).	Yes																					
B.7.1.3. Parameter Title:	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
Monitoring Checklist	Yes / No																					
Title in line with methodology?	Yes																					

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LFGflare,y  Amount of landfill gas flared at Normal Temperature and Pressure		<table><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided for estimation?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr><tr><td>Correct reference to standards?</td><td>Yes</td></tr><tr><td>Indication of accuracy provided?</td><td>Yes</td></tr><tr><td>QA/QC procedures described?</td><td>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table>	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided for estimation?	Yes	Has this value been verified?	Yes	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes							
Data unit correctly expressed?	Yes																												
Appropriate description of parameter?	Yes																												
Source clearly referenced?	Yes																												
Correct value provided for estimation?	Yes																												
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.7.1.4.      Parameter Title:  LFGelectricity,y  Amount of landfill gas combusted in power plant at Normal Temperature and Pressure	2	<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		<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																												
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.7.1.5.      Parameter Title:	2			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																								

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LFGthermal,y  Amount of methane combusted in boiler at Normal Temperature and Pressure		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		
		Indication of accuracy provided?	NA		
		QA/QC procedures described?	NA		
		QA/QC procedures appropriate?	NA		
B.7.1.6.      Parameter Title:	2			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
LFGPL,y  Amount of landfill gas sent to Pipe Line at Normal Temperature and Pressure		Monitoring Checklist	Yes / No		
		Title in line with methodology?	NA		
		Data unit correctly expressed?	NA		
		Appropriate description of parameter?	NA		
		Source clearly referenced?	NA		
		Correct value provided for estimation?	NA		
		Has this value been verified?	NA		
		Measurement method correctly described?	NA		
		Correct reference to standards?	NA		

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		Indication of accuracy provided?	NA																				
		QA/QC procedures described?	NA																				
		QA/QC procedures appropriate?	NA																				
B.7.1.7. Parameter Title: Project Emission from flaring of the residual gas stream in year (PE <sub>flare,y</sub> )	2	<table><tr><th>Data 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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> See Corrective Action Request No.11		Data 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?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	OPEN	<input checked="" type="checkbox"/>
Data 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?	No																						
Has this value been verified?	No																						
Choice of data correctly justified?	No																						
Measurement method correctly described?	No																						
B.7.1.8. Parameter Title:  wCH4  Methane fraction in the landfill gas	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr></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	OPEN	<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																						

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		Correct value provided for estimation?	Yes												
		Has this value been verified?	Yes												
		Measurement method correctly described? Methane fraction of the landfill gas and LFG flow have to be measured on same basis (either wet or dry). Is it indicated if the measurement equipment can directly measure methane content in the LFG?	Yes												
		Correct reference to standards?	Yes												
		Indication of accuracy provided? Is it indicated whether a continuous or a periodically measurement will be conducted?	Yes												
		QA/QC procedures described?	Yes												
		QA/QC procedures appropriate?	Yes												
		The gas analyzer should be a methane analyzer													
B.7.1.9. Parameter Title:  T  Temperature of the landfill gas	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>No</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?	No	OPEN	<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?	No														



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		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		
		Please clarify which will be the source of data to be used. A thermometer would be enough to measure the temperature of the landfill gas, a thermocouple is not needed.			
B.7.1.10.      Parameter Title:	2			OPEN	☑
P					
Pressure of the landfill gas					
		Monitoring Checklist	Yes / No		
		Title in line with methodology?	Yes		
		Data unit correctly expressed?	Yes		
		Appropriate description of parameter?	Yes		
		Source clearly referenced?	No		
		Correct value provided for estimation?	Yes		
		Has this value been verified?	Yes		
		Measurement method correctly described?	Yes		

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		Correct reference to standards?	Yes																										
		Indication of accuracy provided?	Yes																										
		QA/QC procedures described?	Yes																										
		QA/QC procedures appropriate?	Yes																										
		Please correct the source of data to be used.																											
B.7.1.11.      Parameter Title:  ELLFG  Net amount of electricity generated using LFG.	2	<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>No</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?	No	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	OPEN	<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?	No																												
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																												
		Please correct the source of data to be used (an electricity meter																											

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		should be used).																										
B.7.1.12.      Parameter Title:  ETLFG  Total amount of thermal energy generated using LFG	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	NA																											
Data unit correctly expressed?	NA																											
Appropriate description of parameter?	NA																											
Source clearly referenced?	NA																											
Correct value provided for estimation?	NA																											
Has this value been verified?	NA																											
Measurement method correctly described?	NA																											
Correct reference to standards?	NA																											
Indication of accuracy provided?	NA																											
QA/QC procedures described?	NA																											
QA/QC procedures appropriate?	NA																											
B.7.1.13.      Parameter Title:  Operation of energy plant	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr></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	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>														
Monitoring Checklist	Yes / No																											
Title in line with methodology?	Yes																											
Data unit correctly expressed?	Yes																											
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Source clearly referenced?	Yes																											

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		<table><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>	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													
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.7.1.14.      Parameter Title:  EFfuel,BL  CO2 emission factor of fossil fuel.	2	<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>NA</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?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
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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?	NA																												
B.7.1.15.      Parameter Title:  NCVfuel,BL  Net calorific value of fossil fuel	2	<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></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	<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																												

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		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.7.1.16.      Parameter Title:  ε BL , gen ε  Efficiency of the baseline captive power plant.	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	☑	☑
Monitoring Checklist	Yes / No																												
Title in line with methodology?	NA																												
Data unit correctly expressed?	NA																												
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Source clearly referenced?	NA																												
Correct value provided for estimation?	NA																												
Has this value been verified?	NA																												
Measurement method correctly described?	NA																												
Correct reference to standards?	NA																												
Indication of accuracy provided?	NA																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.17.      Parameter Title:  ε boiler Efficiency of the baseline boiler for producing thermal energy.  Option A Use the highest value among the following three val-	2	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	☑	☑										
Monitoring Checklist	Yes / No																												
Title in line with methodology?	NA																												
Data unit correctly expressed?	NA																												
Appropriate description of parameter?	NA																												
Source clearly referenced?	NA																												
Correct value provided for estimation?	NA																												
Has this value been verified?	NA																												

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ues as a conservative approach: 1. Measured efficiency prior to project implementation; 2. Measured efficiency during monitoring; 3. Manufacturer’s information on the boiler efficiency.  Option B Assume a boiler efficiency of 100% based on the net calorific values as a conservative approach.		Measurement method correctly described?	NA																										
		Correct reference to standards?	NA																										
		Indication of accuracy provided?	NA																										
		QA/QC procedures described?	NA																										
		QA/QC procedures appropriate?	NA																										
B.7.1.18.      Parameter Title:  Operation of the boiler	2	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided for estimation?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided for estimation?	NA	Has this value been verified?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	NA																												
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Measurement method correctly described?	NA																												
Correct reference to standards?	NA																												
Indication of accuracy provided?	NA																												
QA/QC procedures described?	NA																												
QA/QC procedures appropriate?	NA																												
B.7.1.19.      Parameter Title:  PEFC.i.v	2	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>																				
Monitoring Checklist	Yes / No																												
Title in line with methodology?	Yes																												

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Project emissions from fossil fuel combustion in process <i>j</i> during the year <i>y</i> .		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.7.1.20.      Parameter Title:  MGPR, <i>y</i> Amount of methane generated during year <i>y</i> of the project activity	2	<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> See Corrective Action Request No.11		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	OPEN	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																												
Title in line with methodology?	No																												
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Correct reference to standards?	No																												
Indication of accuracy provided?	No																												
QA/QC procedures described?	No																												
QA/QC procedures appropriate?	No																												
B.7.1.21.      Is the Global Warming Potential going to be monitored at the end of the first commitment period?	1	<b><u>Corrective Action Request No.12.</u></b> Please include the note: The GWP shall be updated accordingly		CAR	<input checked="" type="checkbox"/>																								

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		to any future COP/MOP decisions.		
<b>B.7.2. Description of the monitoring plan</b>				
B.7.2.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	2	Yes, the monitoring plan is according to the ACM0001 ver. 11	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.2.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1	Yes, the monitoring plan includes the responsibilities and the collection of data.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.2.3. Does the monitoring plan provide current good monitoring practice?	1	Yes, the monitoring plan includes all the relevant information and monitoring data.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.7.2.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?	1	Yes, additional information about monitoring plan is in Annex 4.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>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>				
B.8.1.1. Is there any indication of a date when the baseline was determined?	1	Yes, the date of completion is indicated in the PDD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.2. Is this consistent with the time line of the PDD history?	6	Yes, it is consistent.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
B.8.1.3. Is the information on the person(s) / entity(ies) responsible for the application of the baseline and monitoring methodology provided consistent with the actual situation?	1	Yes, it is consistent with the actual situation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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B.8.1.4. Is information provided whether this person / entity is also considered a project participant?	1	Yes the information is mentioned in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>C. Duration of the project activity / crediting period</b>				
<b>C.1. Duration of the project activity</b>				
C.1.1. Are the project's starting date and operational lifetime clearly defined and reasonable?	14, 17, 19, 20, 21	<b>Clarification Request No. 5.</b> Please indicate if the starting date of the project activity reflects the earliest of the dates at which the implementation or the construction or real action of the project activity begins.	CR	<input checked="" type="checkbox"/>
<b>C.2. Choice of the crediting period and related information</b>				
C.2.1. Is the assumed crediting time clearly defined and reasonable (renewable crediting period of max 7 years with potential for 2 renewals or fixed crediting period of max. 10 years)?	6	Yes, the chosen crediting period is 10 years	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>D. Environmental impacts</b>				
<b>D.1. Documentation on the analysis of the environmental impacts, including transboundary impacts</b>				
D.1.1. Has the analysis of the environmental impacts of the project activity been sufficiently described?	9	Yes, environmental impacts are clearly and completely described in the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.2. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	9	No, Environmental Impact Assessment is not requisite.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.1.3. Will the project create any adverse en-	9	No significant environmental impacts.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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Environmental effects?				
D.1.4. Were transboundary environmental impacts identified in the analysis?	9	Yes, there is no transboundary environmental impact to be considered.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>D.2. If environmental impacts are considered significant by the project participants or the host Party, please provide conclusions and all references to support documentation of an environmental impact assessment undertaken in accordance with the procedures as required by the host Party</b>				
D.2.1. Have the identified environmental impacts been addressed in the project design sufficiently?	9	Not applicable; environmental impacts are not considered significant.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
D.2.2. Does the project comply with environmental legislation in the host country?	9	Yes, it complies with environmental legislation.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E. Stakeholders' comments</b>				
<b>E.1. Brief description how comments by local stakeholders have been invited and compiled</b>				
E.1.1. Have relevant stakeholders been consulted?	17	Yes, the stakeholders have been consulted.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.2. Have appropriate media been used to invite comments by local stakeholders?	17	Yes, the consultation was announced in the main local newspaper on November 30, 2007.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
E.1.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	17	No, stakeholder consultation is not mandatory in Mexico.	<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?	17	Yes, it was carried out in a complete and transparent manner.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PPD in GSP	Final PDD
<b>E.2. Summary of the comments received</b>				
E.2.1. Is a summary of the received stakeholder comments provided?	17	Yes, the summary is complete	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>E.3. Report on how due account was taken of any comments received</b>				
E.3.1. Has due account been taken of any stakeholder comments received?	17	Yes, comments were taken on account nevertheless the comments were mainly positives.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F. Annexes 1 – 4</b>				
<b>F.1. Annex 1: Contact Information</b>				
F.1.1. Is the information provided consistent with the one given under section A.3?	7	Yes, information regarding project participants within the PDD is consistent.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.1.2. Is the information on all private participants and directly involved Parties presented?	1, 26	<b><u>Corrective Action Request No.13.</u></b> Please include the e-mail address from the contact person.	<b>CAR</b>	<input checked="" type="checkbox"/>
<b>F.2. Annex 2: Information regarding public funding</b>				
F.2.1. Is the information provided on the inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?	1	Not applicable, there is no public funding.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.2.2. If necessary: Is an affirmation available that any such funding from Annex-I-countries does not result in a diversion of ODA?	1	Not applicable, there is no public funding.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.3. Annex 3: Baseline information</b>				
F.3.1. If additional background information on baseline data is provided: Is this in-	8	See Corrective Action Request No.7 and Corrective Action Re-	Open	<input checked="" type="checkbox"/>

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formation consistent with data presented by other sections of the PDD?		quest No.9		
F.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	8	Please see comments above.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.3.3. Does the additional information substantiate / support statements given in other sections of the PDD?	1	Yes, information in Annex 3 supports information within the PDD.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>F.4. Annex 4: Monitoring information</b>				
F.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	1, 26	<b><u>Corrective Action Request No.14.</u></b> Please include all the parameters to be monitored as mentioned in section B.7.1	<b>CAR</b>	<input checked="" type="checkbox"/>
F.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1	Yes, information in annex 4 is complete.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
F.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	1	Yes, sections in the PDD concerning monitoring plan are complete.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Table 1a Tool to determine project emissions from flaring gases containing methane

The ACM0001 methodology requires the use of the “Tool to determine project emissions from flaring gases containing methane” to calculate the project emissions from flaring of the residual gas stream ( $PE_{flare}$  in  $tCO_2e$ ).  $PE_{flare}$  can be calculated on an annual basis or for the required period of time using this tool.

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<b>G. Tool to determine project emissions from flaring gases containing methane</b>												
<b>G.1. Justification of the choice of the tool and why it is applicable to the project activity</b>												
G.1.1. Is the applied tool considered the most appropriate one?	3	Yes the tool was considered for the calculations.	<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";												
G.1.2. Criterion 1: Is the residual gas stream (RG) containing methane?	3, 26	<table border="1"> <thead> <tr> <th>Applicability checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>No</td> </tr> <tr> <td>Compliance verified?</td> <td>No</td> </tr> </tbody> </table> <p><b><u>Corrective Action Request No.15.</u></b> Please include this criterion in section B.2, in order to justify the applicability of the tool.</p>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	<b>CAR</b>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
G.1.3. Criterion 2: Is the residual gas stream (RG) to be flared containing no other combustible gases than methane, carbon monoxide and hydrogen?	3,26	<table border="1"> <thead> <tr> <th>Applicability checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td>Criterion discussed in the PDD?</td> <td>No</td> </tr> <tr> <td>Compliance provable?</td> <td>Yes</td> </tr> <tr> <td>Compliance verified?</td> <td>Yes</td> </tr> </tbody> </table> <p>Please refer to Corrective Action Request No.15</p>	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	Yes	Compliance verified?	Yes	<b>Open</b>	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	No											
Compliance provable?	Yes											
Compliance verified?	Yes											
G.1.4. Criterion 3: Is the residual gas stream (RG) to be flared	3, 26	<table border="1"> <thead> <tr> <th>Applicability checklist</th> <th>Yes / No</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Applicability checklist	Yes / No			<b>OPEN</b>	<input checked="" type="checkbox"/>				
Applicability checklist	Yes / No											

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obtained from decomposition of organic material (through landfills, bio-digesters or anaerobic lagoons, among others) or from gases vented in coal mines (coal mine methane and coal bed methane)?		<table><tr><td>Criterion discussed in the PDD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>No</td></tr></table> See Corrective Action Request No.15	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No														
Criterion discussed in the PDD?	No																					
Compliance provable?	No																					
Compliance verified?	No																					
<b>G.2. Description of the parameters included in the tool</b>																						
Integrate the required amount of sub-checklists for parameters as given by the tool applied and comment on at least every line answered with “No”																						
G.2.1. Parameter: $PE_{flare,y}$ Project emissions from flaring of the residual gas stream in year $y$  Unit: $tCO_{2e}$ Type: result	3, 26	<table><tr><td>Data 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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> See Corrective Action Request No.11	Data 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?	No	Has this value been verified?	No	Choice of data correctly justified?	No	Measurement method correctly described?	No	OPEN	<input checked="" type="checkbox"/>
Data 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?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	No																					
G.2.2. Parameter: $\eta_{flare,h}$ Flare efficiency in hour $h$ based on measurements or default values  Unit: - Type: default/result	3, 26	<table><tr><td>Data 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?</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>No</td></tr></table>	Data 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?	No	Has this value been verified?	No	Choice of data correctly justified?	No	OPEN	<input checked="" type="checkbox"/>		
Data 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?	No																					
Has this value been verified?	No																					
Choice of data correctly justified?	No																					

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		<table><tr><td>Measurement method correctly described?</td><td>No</td></tr></table> See Corrective Action Request No.11	Measurement method correctly described?	No																		
Measurement method correctly described?	No																					
G.2.3.     Parameter: $fv_{i,h}$ Volumetric fraction of component $i$ in the residual gas in the hour $h$ where $i = CH_4, CO, CO_2, O_2, H_2, N_2$  Unit: - Type: monitored	3	<table><tr><td>Data 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?</td><td>Yes</td></tr><tr><td>Has this value been verified?</td><td>Yes</td></tr><tr><td>Choice of data correctly justified?</td><td>Yes</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	Yes	Measurement method correctly described?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					
G.2.4.     Parameter: $FV_{RG,h}$ Volumetric flow rate of the residual gas in dry basis at normal (NTP) conditions 2 in the hour $h$  Unit: m <sup>3</sup> /h Type: monitored	3	<table><tr><td>Data 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?</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>No</td></tr><tr><td>Measurement method correctly described?</td><td>Yes</td></tr></table>  Please specify the value of data to be applied.	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	Yes	Appropriate description of parameter?	Yes	Source clearly referenced?	Yes	Correct value provided?	Yes	Has this value been verified?	Yes	Choice of data correctly justified?	No	Measurement method correctly described?	Yes	OPEN	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	Yes																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	No																					
Measurement method correctly described?	Yes																					

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G.2.5. Parameter: $t_{O_2, h}$ Volumetric fraction of O2 in the exhaust gas of the flare in the hour $h$ (only in case the flare efficiency is continuously monitored)  Unit: - Type: monitored	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Parameter discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
Boundary checklist	Yes / No																					
Parameter discussed in the PDD?	Yes																					
Inclusion / exclusion justified?	Yes																					
Explanation / Justification sufficient?	Yes																					
Consistency with monitoring plan?	Yes																					
G.2.6. Parameter to be monitored: $f_{V\ CH_4,FG,h}$ Concentration of methane in the exhaust gas of the flare in dry basis at normal conditions in the hour $h$ (only in the case the flare efficiency is continuously monitored)  Unit: mg/m <sup>3</sup> Type: required	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Parameter discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								
Boundary checklist	Yes / No																					
Parameter discussed in the PDD?	Yes																					
Inclusion / exclusion justified?	Yes																					
Explanation / Justification sufficient?	Yes																					
Consistency with monitoring plan?	Yes																					
G.2.7. Parameter to be monitored: $T_{flare}$ Temperature in the exhaust gas of the enclosed flare  Unit: °C Type: required	3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>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>	Data Checklist	Yes / No	Title in line with methodology?	Yes	Data unit correctly expressed?	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	OPEN	<input checked="" type="checkbox"/>
Data Checklist	Yes / No																					
Title in line with methodology?	Yes																					
Data unit correctly expressed?	Yes																					
Appropriate description of parameter?	Yes																					
Source clearly referenced?	No																					
Correct value provided?	Yes																					
Has this value been verified?	Yes																					
Choice of data correctly justified?	Yes																					
Measurement method correctly described?	Yes																					



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		Please correct the source of data to be use.												
<p>G.2.8. Parameter to be monitored:</p> <p>- Any other parameters required to monitor proper operation of the flare according to the manufacturer's specification (only in the case of use of a default value for the flare efficiency)</p> <p>Unit: -</p> <p>Type: required</p>	3, 26	<table border="1"> <tr> <th>Boundary checklist</th> <th>Yes / No</th> </tr> <tr> <td>Parameter discussed in the PDD?</td> <td>NA</td> </tr> <tr> <td>Inclusion / exclusion justified?</td> <td>NA</td> </tr> <tr> <td>Explanation / Justification sufficient?</td> <td>NA</td> </tr> <tr> <td>Consistency with monitoring plan?</td> <td>NA</td> </tr> </table> <p><b>Clarification Request No. 6.</b></p> <p>Please clarify why the parameter <math>PE_{FC,j,y}</math> is going to be monitored if it is assumed in section B.6.1 that won't be any heat consumption.</p>	Boundary checklist	Yes / No	Parameter discussed in the PDD?	NA	Inclusion / exclusion justified?	NA	Explanation / Justification sufficient?	NA	Consistency with monitoring plan?	NA	CR	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	NA													
Inclusion / exclusion justified?	NA													
Explanation / Justification sufficient?	NA													
Consistency with monitoring plan?	NA													
G.2.9. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PDD?	5,10	Yes, the spatial and technological boundaries were verified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
<b>G.3. Description of how the baseline methodology procedure is identified and description of the identified baseline procedure</b>														
G.3.1. Are the project emissions from flaring of the residual gas stream calculated based on the flare efficiency and the mass flow rate of methane?	3	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>										
G.3.2. Does the determination of flare efficiency take into account the actual efficiency of combustion in the flare and the time that the flare is operating?	3	Yes, the flare efficiency has been applied in accordance with the "tool to determinate project emissions from flaring gases containing methane".	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										
G.3.3. Does the calculation of combustion ef-	3	Yes, see comments above	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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iciency take into account the methane content in the exhaust gas of the flare, the air used in the combustion process, and the methane content in the residual gas?				
G.3.4. Is the stated type of flare (open, enclosed) traceable due to the definitions mentioned in the tool?	1	Yes, is clearly stated in the PDD that an enclosed flare will be used.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G.3.5. In case of open flare: Is there a device foreseen to demonstrate the flare is operational and are the default values (50% , 0%) in the calculation adapted?	1	Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
G.3.6. Have applicable regulatory or legal requirements been identified?	1	. There are no regulations or legal requirements for capturing and flaring of methane in Mexico.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Table 1b Tool to calculate the emission factor for an electricity system

The ACM0001 methodology requires the use of the “Tool to calculate the emission factor for an electricity system” to determine the CO<sub>2</sub> emission factor for the displacement of electricity generated by power plants in an electricity system, by calculating the “operating margin” (OM) and “build margin” (BM) as well as the “combined margin” (CM).

<b>H. Tool to calculate the emission factor for an electricity system</b>				
<b>H.1. Justification of the choice of the tool and why it is applicable to the project activity</b>				
H.1.1. Is the applied tool considered the most appropriate one?	11	Yes the tool was considered for the calculations.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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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”;												
H.1.2. Criterion 1: Is the tool used for the purpose of calculating baseline emissions where a project activity supplies electricity to a grid?	3	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>No</td></tr></table> See Corrective Action Request No.15	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	OPEN	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
H.1.3. Criterion 2: Is the tool used for the purpose of calculating baseline emissions for a project activity that results in savings of electricity that would have been provided by the grid?	3	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>No</td></tr></table> See Corrective Action Request No.15.	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	OPEN	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											
H.1.4. Criterion 3: Is the tool used for the purpose of calculating project and leakage emissions in case where a project activity consumes electricity from the grid or results in increase of consumption of electricity from the grid outside the project boundary?	3	<table><tr><td>Applicability checklist</td><td>Yes / No</td></tr><tr><td>Criterion discussed in the PDD?</td><td>No</td></tr><tr><td>Compliance provable?</td><td>No</td></tr><tr><td>Compliance verified?</td><td>No</td></tr></table> See Corrective Action Request No.15	Applicability checklist	Yes / No	Criterion discussed in the PDD?	No	Compliance provable?	No	Compliance verified?	No	OPEN	<input checked="" type="checkbox"/>
Applicability checklist	Yes / No											
Criterion discussed in the PDD?	No											
Compliance provable?	No											
Compliance verified?	No											

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H.2. Description of the parameters included in the tool														
Integrate the required amount of sub-checklists for parameters as given by the tool applied and comment on at least every line answered with “No”														
H.2.1. Parameter: EF <sub>grid,CM,y</sub> Combined margin CO2 emission factor for grid connected power generation in year y  Unit: tCO <sub>2</sub> /MWh Type: calculated	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>No</td></tr><tr><td>Inclusion / exclusion justified?</td><td>No</td></tr><tr><td>Explanation / Justification sufficient?</td><td>No</td></tr><tr><td>Consistency with monitoring plan?</td><td>No</td></tr></table> See Corrective Action Request No.11.	Boundary checklist	Yes / No	Parameter discussed in the PDD?	No	Inclusion / exclusion justified?	No	Explanation / Justification sufficient?	No	Consistency with monitoring plan?	No	OPEN	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	No													
Inclusion / exclusion justified?	No													
Explanation / Justification sufficient?	No													
Consistency with monitoring plan?	No													
H.2.2. Parameter: EF <sub>grid,BM,y</sub> Build margin CO2 emission factor for grid connected power generation in year y  Unit: tCO <sub>2</sub> /MWh Type: calculated	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>No</td></tr><tr><td>Inclusion / exclusion justified?</td><td>No</td></tr><tr><td>Explanation / Justification sufficient?</td><td>No</td></tr><tr><td>Consistency with monitoring plan?</td><td>No</td></tr></table> See Corrective Action Request No.11	Boundary checklist	Yes / No	Parameter discussed in the PDD?	No	Inclusion / exclusion justified?	No	Explanation / Justification sufficient?	No	Consistency with monitoring plan?	No	OPEN	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	No													
Inclusion / exclusion justified?	No													
Explanation / Justification sufficient?	No													
Consistency with monitoring plan?	No													
H.2.3. Parameter: EF <sub>grid,OM,y</sub> Operating margin CO2 emission factor for grid connected power generation in year y  Unit: tCO <sub>2</sub> /MWh Type: calculated	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>No</td></tr><tr><td>Inclusion / exclusion justified?</td><td>No</td></tr><tr><td>Explanation / Justification sufficient?</td><td>No</td></tr><tr><td>Consistency with monitoring plan?</td><td>No</td></tr></table> See Corrective Action Request No.11	Boundary checklist	Yes / No	Parameter discussed in the PDD?	No	Inclusion / exclusion justified?	No	Explanation / Justification sufficient?	No	Consistency with monitoring plan?	No	OPEN	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	No													
Inclusion / exclusion justified?	No													
Explanation / Justification sufficient?	No													
Consistency with monitoring plan?	No													

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H.2.4. Parameter: FC <sub>i,m,y</sub> , FC <sub>i,y</sub> , FC <sub>i,j,y</sub> , FC <sub>i,k,y</sub> , FC <sub>i,n,y</sub> and FC <sub>i,n,h</sub> Amount of fossil fuel type i consumed by power plant / unit m, j, k or n (or in the project electricity system in case of FC <sub>i,y</sub> ) in year y or hour h  Unit: mass or volume unit Type: official publication	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>No</td></tr><tr><td>Inclusion / exclusion justified?</td><td>No</td></tr><tr><td>Explanation / Justification sufficient?</td><td>No</td></tr><tr><td>Consistency with monitoring plan?</td><td>No</td></tr></table> Please include the table as indicated in the tool. See Corrective Action Request No.11	Boundary checklist	Yes / No	Parameter discussed in the PDD?	No	Inclusion / exclusion justified?	No	Explanation / Justification sufficient?	No	Consistency with monitoring plan?	No	OPEN	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	No													
Inclusion / exclusion justified?	No													
Explanation / Justification sufficient?	No													
Consistency with monitoring plan?	No													
H.2.5. Parameter: NCV <sub>i,y</sub> Net calorific value (energy content) of fossil fuel type i in year y  Unit: GJ / mass or volume unit Type:	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>No</td></tr><tr><td>Inclusion / exclusion justified?</td><td>No</td></tr><tr><td>Explanation / Justification sufficient?</td><td>No</td></tr><tr><td>Consistency with monitoring plan?</td><td>No</td></tr></table> Please include the table as indicated in the tool. See Corrective Action Request No.11.	Boundary checklist	Yes / No	Parameter discussed in the PDD?	No	Inclusion / exclusion justified?	No	Explanation / Justification sufficient?	No	Consistency with monitoring plan?	No	OPEN	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	No													
Inclusion / exclusion justified?	No													
Explanation / Justification sufficient?	No													
Consistency with monitoring plan?	No													
H.2.6. Parameter: COEF <sub>i,j</sub> CO <sub>2</sub> emission factor of fossil fuel type i in year y  Unit: CO2/GJ	3	<table><tr><th>Boundary checklist</th><th>Yes / No</th></tr><tr><td>Parameter discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr></table>	Boundary checklist	Yes / No	Parameter discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Boundary checklist	Yes / No													
Parameter discussed in the PDD?	Yes													
Inclusion / exclusion justified?	Yes													
Explanation / Justification sufficient?	Yes													

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Type:		Consistency with monitoring plan?	Yes												
H.2.7. Parameter: EG <sub>m,y</sub> , EG <sub>y</sub> , EG <sub>j,y</sub> , EG <sub>k,y</sub> and EG <sub>n,h</sub> Net electricity generated and delivered to the grid by power plant / unit m, j, k or n (or in the project electricity system in case of EG <sub>y</sub> ) in year y or hour h  Unit: MWh Type: monitored	3	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Parameter discussed in the PDD?</td><td>Yes</td></tr><tr><td>Inclusion / exclusion justified?</td><td>Yes</td></tr><tr><td>Explanation / Justification sufficient?</td><td>Yes</td></tr><tr><td>Consistency with monitoring plan?</td><td>Yes</td></tr></table>		Boundary checklist	Yes / No	Parameter discussed in the PDD?	Yes	Inclusion / exclusion justified?	Yes	Explanation / Justification sufficient?	Yes	Consistency with monitoring plan?	Yes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Parameter discussed in the PDD?	Yes														
Inclusion / exclusion justified?	Yes														
Explanation / Justification sufficient?	Yes														
Consistency with monitoring plan?	Yes														
H.2.8. Parameter (only for dispatch data OM): EGP <sub>J,h</sub> Electricity displaced by the project activity in hour h of year y  Unit: MWh Type: Monitored	3	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Parameter discussed in the PDD?</td><td>NA</td></tr><tr><td>Inclusion / exclusion justified?</td><td>NA</td></tr><tr><td>Explanation / Justification sufficient?</td><td>NA</td></tr><tr><td>Consistency with monitoring plan?</td><td>NA</td></tr></table>		Boundary checklist	Yes / No	Parameter discussed in the PDD?	NA	Inclusion / exclusion justified?	NA	Explanation / Justification sufficient?	NA	Consistency with monitoring plan?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Parameter discussed in the PDD?	NA														
Inclusion / exclusion justified?	NA														
Explanation / Justification sufficient?	NA														
Consistency with monitoring plan?	NA														
H.2.9. Parameter: (only for dispatch data OM) η <sub>m,y</sub> Average net energy conversion efficiency of power unit m in year y  Unit: - Type:	3	<table><tr><td>Boundary checklist</td><td>Yes / No</td></tr><tr><td>Parameter discussed in the PDD?</td><td>NA</td></tr><tr><td>Inclusion / exclusion justified?</td><td>NA</td></tr><tr><td>Explanation / Justification sufficient?</td><td>NA</td></tr><tr><td>Consistency with monitoring plan?</td><td>NA</td></tr></table>		Boundary checklist	Yes / No	Parameter discussed in the PDD?	NA	Inclusion / exclusion justified?	NA	Explanation / Justification sufficient?	NA	Consistency with monitoring plan?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Boundary checklist	Yes / No														
Parameter discussed in the PDD?	NA														
Inclusion / exclusion justified?	NA														
Explanation / Justification sufficient?	NA														
Consistency with monitoring plan?	NA														
H.2.10. Do the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to	3	Yes the technological boundaries are mentioned in the PDD.		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>										

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the PDD?				
<b>H.3. Description of how the baseline methodology procedure is identified and description of the identified baseline procedure</b>				
H.3.1. Is every selection of options offered by the tool correctly justified and is this justification in line with the situation verified on-site?	3, 11	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>
H.3.2. Are the formulae required for the determination of the Operating Margin correctly presented, enabling a complete identification of parameter to be used and / or monitored?	3,11	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>
H.3.3. Is the method to calculate the Operating Margin (Simple OM, Simple Adjusted OM, Dispatch data OM, or Average OM), the most appropriated one?	3,11	Please include this analysis. See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>
H.3.4. Are the formulae required for the determination of the Build Margin correctly presented, enabling a complete identification of parameter to be used and / or monitored?	3,11	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>
H.3.5. Is the set of power units (the set of five power units that have been built most recently, or the set of power capacity additions in the electricity system that comprise 20% of the system generation (in MWh) and that have been built most recently), comprising the larger annual generation?	3,11	See Corrective Action Request No.9	OPEN	<input checked="" type="checkbox"/>
H.3.6. Are the formulae required for the determination of the Combined Margin correctly presented, enabling a complete identification of parameter to be used and / or monitored?	3,11	See Corrective Action Request No.6	OPEN	<input checked="" type="checkbox"/>

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H.3.7. Are the values used for $w_{OM}$ and $w_{BM}$ correctly applied?		Yes, the values are correctly applies.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H.3.8. Is the calculation of the operating margin and build margin emission factors documented electronically in a spreadsheet attached to the CDM-PDD. This should include all data used to calculate the emission factors.	3,11	Yes, the calculations were submitted, nevertheless please submit to the DOE the updated calculations.  Submitted to the DOE in the file "Baseline emissions Culiacán final (B).xls", sheet "Grid Factor"	<b>OPEN</b>	<input checked="" type="checkbox"/>
H.3.9. Are the default efficiency factors for power plants used according to annex I of the tool?	3,11	Not applicable.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
H.3.10. Have applicable regulatory or legal requirements been identified?	3,8, 11	Yes the regulatory and legal requirement has been identified.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Table 1c Tool to calculate project emissions from electricity consumption

The ACM0001 methodology requires the use of the "Tool to calculate project emissions from electricity consumption". This tool provides procedures to estimate the project emissions associated with the consumption of electricity by the proposed CDM project activity.

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	PDD in GSP	Final PDD
<b>I. Emissions reductions</b>				
Integrate questions concerning methodological choices and selection of options, if necessary				
<i>I.1.1. Explanation of methodological choices</i>				
I.1.1.1. Is it explained how the procedures pro-	3	Yes, the procedures are explained.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



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vided in the tool are applied by the proposed project activity?																						
I.1.1.2. Is every selection of options offered by the tool correctly justified and is this justification in line with the situation verified on-site?	3	Yes, the options are justified.	☑	☑																		
I.1.1.3. Are the formulae required for the determination of project or leakage emissions by electricity consumption correctly presented, enabling a complete identification of parameter to be used and / or monitored?	3	Yes, the formulae are complete.	☑	☑																		
I.1.2. Data and parameters that are available at validation																						
I.1.2.1. Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied tool?	3	The parameters are complete.	☑	☑																		
I.1.2.2. Parameter Title: PP <sub>i</sub> Rated capacity of power plant i	3	<table><tr><th>Data Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Correct value provided?</td><td>NA</td></tr><tr><td>Has this value been verified?</td><td>NA</td></tr><tr><td>Choice of data correctly justified?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr></table>	Data Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Correct value provided?	NA	Has this value been verified?	NA	Choice of data correctly justified?	NA	Measurement method correctly described?	NA	☑	☑
Data Checklist	Yes / No																					
Title in line with methodology?	NA																					
Data unit correctly expressed?	NA																					
Appropriate description of parameter?	NA																					
Source clearly referenced?	NA																					
Correct value provided?	NA																					
Has this value been verified?	NA																					
Choice of data correctly justified?	NA																					
Measurement method correctly described?	NA																					

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I.1.3. Ex-ante calculation of emission by electricity consumption																		
I.1.3.1. Is the projection based on the same procedures as used for future monitoring?	11	Yes the projection is based on the same procedures as used for future monitoring.	☑	☑														
I.1.3.2. Are the GHG calculations documented in a complete and transparent manner?	11	Yes, calculations are in the PDD.	☑	☑														
I.1.3.3. Is the data provided in this section consistent with data as presented in other chapters of the PDD?	11	Yes, sections in the PDD are consistent.	☑	☑														
I.1.4. Summary of the ex-ante estimation of emissions by electricity consumption																		
I.1.4.1. Is the data provided in this section in consistency with data as presented in other chapters of the PDD?	11	Yes, sections in the PDD are consistent.	☑	☑														
I.2. Application of the monitoring methodology and description of the monitoring plan																		
I.2.1. Data and parameters monitored																		
I.2.1.1. Is the list of parameters presented in chapter B.7.1 considered to be complete with regard to the requirements of the applied tool?	3	No, see comments below.	OPEN	☑														
I.2.1.2. Parameter Title: EC <sub>PJ,y</sub> Onsite consumption of electricity provided by the grid and/or captive power plant(s) and attributable to the project activity during the year y	3	<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>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr></table>	Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Measurement method correctly described?	No	Correct reference to standards?	No	OPEN	☑
Monitoring Checklist	Yes / No																	
Title in line with methodology?	No																	
Data unit correctly expressed?	No																	
Appropriate description of parameter?	No																	
Source clearly referenced?	No																	
Measurement method correctly described?	No																	
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CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS		PDD in GSP	Final PDD																						
			<table><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>Monitoring Frequency compliant?</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 Corrective Action Request No.11		Indication of accuracy provided?	No	Monitoring Frequency compliant?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No																
Indication of accuracy provided?	No																											
Monitoring Frequency compliant?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
I.2.1.3.	Parameter Title: EF <sub>grid,y</sub> Emission factor for the grid in year y	3	<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>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>Monitoring Frequency compliant?</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>		Monitoring Checklist	Yes / No	Title in line with methodology?	No	Data unit correctly expressed?	No	Appropriate description of parameter?	No	Source clearly referenced?	No	Measurement method correctly described?	No	Correct reference to standards?	No	Indication of accuracy provided?	No	Monitoring Frequency compliant?	No	QA/QC procedures described?	No	QA/QC procedures appropriate?	No	OPEN	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																											
Title in line with methodology?	No																											
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Source clearly referenced?	No																											
Measurement method correctly described?	No																											
Correct reference to standards?	No																											
Indication of accuracy provided?	No																											
Monitoring Frequency compliant?	No																											
QA/QC procedures described?	No																											
QA/QC procedures appropriate?	No																											
I.2.1.4.	Parameter Title: TDL <sub>y</sub> Average technical transmission and distribution losses	3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>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></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	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	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																											
Measurement method correctly described?	Yes																											
Correct reference to standards?	Yes																											
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		<table><tr><td>Monitoring Frequency compliant?</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 Frequency compliant?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes																		
Monitoring Frequency compliant?	Yes																										
QA/QC procedures described?	Yes																										
QA/QC procedures appropriate?	Yes																										
I.2.1.5. Parameter Title: FC <sub>k,i,y</sub> Quantity of fossil fuel type i fired in the captive power plant k in year y	3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>N/A</td></tr><tr><td>Data unit correctly expressed?</td><td>N/A</td></tr><tr><td>Appropriate description of parameter?</td><td>N/A</td></tr><tr><td>Source clearly referenced?</td><td>N/A</td></tr><tr><td>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>Monitoring Frequency compliant?</td><td>N/A</td></tr><tr><td>QA/QC procedures described?</td><td>N/A</td></tr><tr><td>QA/QC procedures appropriate?</td><td>N/A</td></tr></table>		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	Measurement method correctly described?	N/A	Correct reference to standards?	N/A	Indication of accuracy provided?	N/A	Monitoring Frequency compliant?	N/A	QA/QC procedures described?	N/A	QA/QC procedures appropriate?	N/A	☑	☑
Monitoring Checklist	Yes / No																										
Title in line with methodology?	N/A																										
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QA/QC procedures described?	N/A																										
QA/QC procedures appropriate?	N/A																										
I.2.1.6. Parameter Title: EG <sub>k,y</sub> total net amount of electricity produced by captive power plant k	3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	☑	☑						
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QA/QC procedures described?	NA																										
QA/QC procedures appropriate?	NA																										
I.2.1.7. Parameter Title: HG <sub>k,y</sub> quantity of heat co-generated in captive power plant k in year y	3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr><tr><td>Monitoring Frequency compliant?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	Monitoring Frequency compliant?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Monitoring Checklist	Yes / No																										
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Monitoring Frequency compliant?	NA																										
QA/QC procedures described?	NA																										
QA/QC procedures appropriate?	NA																										
I.2.1.8. Parameter Title: NCV <sub>i</sub> Net calorific value of fuel type i	3	<table><tr><td>Monitoring Checklist</td><td>Yes / No</td></tr><tr><td>Title in line with methodology?</td><td>NA</td></tr><tr><td>Data unit correctly expressed?</td><td>NA</td></tr><tr><td>Appropriate description of parameter?</td><td>NA</td></tr><tr><td>Source clearly referenced?</td><td>NA</td></tr><tr><td>Measurement method correctly described?</td><td>NA</td></tr><tr><td>Correct reference to standards?</td><td>NA</td></tr><tr><td>Indication of accuracy provided?</td><td>NA</td></tr></table>		Monitoring Checklist	Yes / No	Title in line with methodology?	NA	Data unit correctly expressed?	NA	Appropriate description of parameter?	NA	Source clearly referenced?	NA	Measurement method correctly described?	NA	Correct reference to standards?	NA	Indication of accuracy provided?	NA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Monitoring Checklist	Yes / No																										
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Appropriate description of parameter?	NA																										
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CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS		PDD in GSP	Final PDD																						
		<table><tr><td>Monitoring Frequency compliant?</td><td>NA</td></tr><tr><td>QA/QC procedures described?</td><td>NA</td></tr><tr><td>QA/QC procedures appropriate?</td><td>NA</td></tr></table>		Monitoring Frequency compliant?	NA	QA/QC procedures described?	NA	QA/QC procedures appropriate?	NA																		
Monitoring Frequency compliant?	NA																										
QA/QC procedures described?	NA																										
QA/QC procedures appropriate?	NA																										
I.2.1.9. Parameter Title: EF <sub>CO2,i</sub> CO <sub>2</sub> emission factor of fuel type i	3	<table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>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>Monitoring Frequency compliant?</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	Measurement method correctly described?	Yes	Correct reference to standards?	Yes	Indication of accuracy provided?	Yes	Monitoring Frequency compliant?	Yes	QA/QC procedures described?	Yes	QA/QC procedures appropriate?	Yes	☑	☑
Monitoring Checklist	Yes / No																										
Title in line with methodology?	Yes																										
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Measurement method correctly described?	Yes																										
Correct reference to standards?	Yes																										
Indication of accuracy provided?	Yes																										
Monitoring Frequency compliant?	Yes																										
QA/QC procedures described?	Yes																										
QA/QC procedures appropriate?	Yes																										
Annex 4: Monitoring information																											
If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PDD?	3	See Corrective Action Request No.14		OPEN	☑																						
Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	11	Yes, the information was verified.		☑	☑																						
Do the additional information and / or documented procedures substantiate / support statements given in other sections of the PDD?	11	Yes, the information is consistent within the PDD.		☑	☑																						

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

Clarifications and corrective action requests by validation team	Ref. to table 1	Summary of project owner response	Validation team conclusion
<b><u>CARs</u></b>			
<b><u>Corrective Action Request No.1.</u></b> The format of the date should include dd/mm/yyyy, please correct it in the PDD	A.1.2	Modified accordingly (30/01/2008)  <b><u>Further request from the DOE</u></b> The format was corrected. Nevertheless the date and the version number must be consistent with the time line of the project. Please use the current date and version and update as needed.  <b><u>Response to further request</u></b> <i>Corrected, see page 2 of the PDD</i>	<input checked="" type="checkbox"/>  The last version and date were correctly addressed in the PDD.
<b><u>Corrective Action Request No.2.</u></b> Please correct in the PDD: 1- The tonnes of waste received by the project landfill as mentioned during the on-site visit. 2- The total number of cells to be included in the future and include them in the calculations as commented in the visit. 3- The stages regarding the flare and the electricity generation as commented in the visit.	A.2.2	In the PDD is described:  <i>"The total amount of waste disposed is around 2.5 million tons. Until 2007, the site received about 850 tons of municipal solid waste (MSW) daily. However, since 2008 it has received on average 450-500 tons per day, because the municipality has a new site for the final disposal of MSW. The number and design of the cells are not available at this moment but, according to the information provided by the Municipality and Promotora Ambiental the final disposal will continue to be at the</i>	<input checked="" type="checkbox"/>  After changes in the PDD, the total number of cells to be included in the project activity are from 1-10, which are closed and do not receive waste anymore. The last version of the PDD was revised and it is considered to be clear and complete.

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		<p><i>Culiacan Northern Landfill with the quantity mentioned for 2008 (conservatively 450 tons per day). The calculations of Emission Reductions include a MSW disposal projection, until 2018 considering an increase, due to population increase, of 0.5%. Promotora Ambiental S.A.B. de C.V. will capture the landfill gas at least until 2023, and future capture of the gas will depend on decisions to be taken by the Municipality of Culiacan”.</i></p> <p><b><u>Further request from the DOE 1</u></b></p> <p>The PDD uploaded for GSP was described that the landfill was going to continue receiving waste and nothing was mentioned about the cells available.</p> <p>Nevertheless, according to the last information cells 1 to 10 will be involved in the project activity, this should be addressed in the new version of the PDD.</p> <p><b><u>Response to further request 1</u></b></p> <p>Corrected in the newest version of the PDD.</p>	<p>A clear statement has been included in the PDD latest version 5, dated 22/07/2009, so the further request 1 can be considered closed.</p> <p><input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request No.3.</u></b></p> <p>The project participants mentioned in the approval letter are not consistent with the project participants mentioned in the PDD. Please correct as necessary.</p>	A.3.2	<p>Corrected, a new version of the approval letter was issued by the Mexican DNA. In the Approval letter the only project participant is “Promotora Ambiental S.A.B. de C.V.”</p> <p><b><u>Further request from the DOE 1</u></b></p> <p>Please submit to the DOE the Approval Letter.</p> <p><b><u>Further request from the DOE 2</u></b></p> <p>The PDD uploaded for GSP the project participant was Promotora Ambiental S.A.B. de C.V.; and now in accor-</p>	<p><input checked="" type="checkbox"/></p> <p>The LoA from Mexican DNA was revised, it is considered to be correct and complete.</p> <p>The new project participant has been included in the</p>



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		<p>dance with the last LoA from Mexican DNA the project participant is Promotora Ambiental de la Laguna S.A. de C.V, this should be updated in the new version of the PDD.</p> <p>In addition the reason change should be clarified to the DOE.</p> <p><b><u>Response to further request 1 and 2</u></b></p> <p>Proper letter of withdrawal from Promotora Ambiental S.A.B. de C.V. to the DOE, an updated MoC, as well as an updated Letter of Approval from SEMARNAT (Mexican DNA), were delivered to the DOE for its clarification.</p> <p>Because of internal administrative, countable and fiscal reasons of the company, as well as for its own interests, Promotora Ambiental S.A.B. de C.V. as a central enterprise, considered adequate that Promotora Ambiental de la Laguna S.A. de C.V. becomes the Project Participant instead of Promotora Ambiental S.A.B. de C.V. By this means, it was requested to the DNA a new National Letter of Approval and the changes were reflected in the newest version of the PDD as well as in the Modalities of Communication.</p>	<p>PDD latest version 5 dated 22/07/2009. In addition an explanation has been provided to the DOE concerning this change, so the further request 2 can be considered closed.</p> <p><input checked="" type="checkbox"/></p>
<p><b><u>Corrective Action Request No.4.</u></b></p> <p>Regarding the technology to be applied, please include in the PDD:</p> <ul style="list-style-type: none"> <li>- The equipment that will be used to produce energy.</li> </ul>	A.4.3.2	<p>A description of both flare and electricity generation technologies is included in section A.4.3.</p> <p>The information for the equipment that will be used to produce energy was provided by Madisa Company.</p> <p>Training program is included in section A.4.3</p> <p><b><u>Further request from the DOE</u></b></p> <p>Please indicate the installed capacity and quantity of</p>	<p><input checked="" type="checkbox"/></p> <p>The last version of the PDD was revised and it is considered to be clear and complete.</p>

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		electricity generators through all the project lifetime according to the expected electricity generation.											
<b><u>Corrective Action Request No.5.</u></b> Please correct the annual estimation of emission reductions in section A.4.4 in the PDD.	A.4.4.2	Done and reviewed according annual estimation of emission reductions, it has been corrected in the PDD.  <b><u>Further request from the DOE</u></b> Please make sure that the annual estimation of emission reductions is according to the requirements of the CAR 6 and CAR 10.	<input checked="" type="checkbox"/> The last version of the PDD was revised and it is considered to be correct and according to the calculations.										
<b><u>Corrective Action Request No.6.</u></b> In section B.6.1 a) Please include the formulae regarding the “tool to determine project emissions from flaring gases containing methane”. b) Please include the formulae regarding the “tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”. c) Please include the formulae regarding the “tool for calculation of emission factor for electricity systems”. d) Please include the formulae regarding the “tool for calculate project emissions from electricity consumption.	B.6.1.1	The formulas were included in the PDD  <b>“Tool to determine project emissions from flaring gases containing methane”.</b> In the PDD the following formulas are described: <table><tr><th>Step 1</th><th>Eq.No.</th></tr><tr><td><math>FM_{RG,h} = \rho_{RG,n,h} * FV_{RG,h}</math></td><td>1</td></tr><tr><td><math>\rho_{RG,h} = \frac{P_n}{\frac{R_u * T_n}{MM_{RG,h}}}</math></td><td>2</td></tr><tr><td><math>MM_{RG,h} = \sum_i (fv_{i,h} * MM_i)</math></td><td>3</td></tr></table> <table><tr><th>Step 2</th><th>Eq.No.</th></tr></table>	Step 1	Eq.No.	$FM_{RG,h} = \rho_{RG,n,h} * FV_{RG,h}$	1	$\rho_{RG,h} = \frac{P_n}{\frac{R_u * T_n}{MM_{RG,h}}}$	2	$MM_{RG,h} = \sum_i (fv_{i,h} * MM_i)$	3	Step 2	Eq.No.	<input checked="" type="checkbox"/> The last version of the PDD, as well as the baseline and the emission factor calculations were revised and they are considered to be clear and complete.
Step 1	Eq.No.												
$FM_{RG,h} = \rho_{RG,n,h} * FV_{RG,h}$	1												
$\rho_{RG,h} = \frac{P_n}{\frac{R_u * T_n}{MM_{RG,h}}}$	2												
$MM_{RG,h} = \sum_i (fv_{i,h} * MM_i)$	3												
Step 2	Eq.No.												

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		$fm_{j,y} = \frac{\sum_i f_{v_{i,h}} * AM_j * NA_{j,i}}{MM_{RG,h}}$	4																
		<table><tr><th>Step 3</th><th>Eq.No.</th></tr><tr><td><math display="block">TV_{n,FG,h} = V_{n,FG,h} * FM_{RG,h}</math></td><td>5</td></tr><tr><td><math display="block">V_{n,FG,h} = V_{n,CO2,h} + V_{n,O2,h} + V_{n,N2,h}</math></td><td>6</td></tr><tr><td><math display="block">V_{n,O2,h} = n_{O2,h} + MV_n</math></td><td>7</td></tr><tr><td><math display="block">V_{n,N2,h} = MV_n * \left\{ \frac{fm_{N,h}}{2AM_N} + \left( \frac{1-MF_{O2}}{MF_{O2}} \right) * [F_h + n_{O2,h}] \right\}</math></td><td>8</td></tr><tr><td><math display="block">V_{n,CO2,h} = \frac{fm_{C,h}}{AM_C} * MV_n</math></td><td>9</td></tr><tr><td><math display="block">n_{O2,h} = \frac{t_{O2,h}}{(1-(t_{O2,h} / MF_{O2}))} * \left\{ \frac{fm_{C,h}}{AM_C} + \frac{fm_{N,h}}{2AM_N} + \left( \frac{1-MF_{O2}}{MF_{O2}} \right) * F_h \right\}</math></td><td>10</td></tr><tr><td><math display="block">F_h = \frac{fm_{C,h}}{AM_C} + \frac{fm_{H,h}}{4AM_H} - \frac{fm_{O,h}}{2AM_O}</math></td><td>11</td></tr></table>	Step 3	Eq.No.	$TV_{n,FG,h} = V_{n,FG,h} * FM_{RG,h}$	5	$V_{n,FG,h} = V_{n,CO2,h} + V_{n,O2,h} + V_{n,N2,h}$	6	$V_{n,O2,h} = n_{O2,h} + MV_n$	7	$V_{n,N2,h} = MV_n * \left\{ \frac{fm_{N,h}}{2AM_N} + \left( \frac{1-MF_{O2}}{MF_{O2}} \right) * [F_h + n_{O2,h}] \right\}$	8	$V_{n,CO2,h} = \frac{fm_{C,h}}{AM_C} * MV_n$	9	$n_{O2,h} = \frac{t_{O2,h}}{(1-(t_{O2,h} / MF_{O2}))} * \left\{ \frac{fm_{C,h}}{AM_C} + \frac{fm_{N,h}}{2AM_N} + \left( \frac{1-MF_{O2}}{MF_{O2}} \right) * F_h \right\}$	10	$F_h = \frac{fm_{C,h}}{AM_C} + \frac{fm_{H,h}}{4AM_H} - \frac{fm_{O,h}}{2AM_O}$	11	
Step 3	Eq.No.																		
$TV_{n,FG,h} = V_{n,FG,h} * FM_{RG,h}$	5																		
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		<table><tr><th>Step 4</th><th>Eq.No.</th></tr></table>	Step 4	Eq.No.															
Step 4	Eq.No.																		

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	<table><tr><td><math>TM_{FG,h} = \frac{TV_{n,FG,h} * fv_{CH4,FG,h}}{1,000,000}</math></td><td>12</td></tr></table>	$TM_{FG,h} = \frac{TV_{n,FG,h} * fv_{CH4,FG,h}}{1,000,000}$	12			
$TM_{FG,h} = \frac{TV_{n,FG,h} * fv_{CH4,FG,h}}{1,000,000}$	12					
	<table><tr><td>Step 5</td><td>Eq.No.</td></tr><tr><td><math>TM_{RG,h} = FV_{RG,h} * fv_{CH4,RG,h} * \rho_{CH4,n}</math></td><td>13</td></tr></table>	Step 5	Eq.No.	$TM_{RG,h} = FV_{RG,h} * fv_{CH4,RG,h} * \rho_{CH4,n}$	13	
Step 5	Eq.No.					
$TM_{RG,h} = FV_{RG,h} * fv_{CH4,RG,h} * \rho_{CH4,n}$	13					
	<table><tr><td>Step 6</td><td>Eq.No.</td></tr><tr><td><math>\eta_{Flare,h} = 1 - \frac{TM_{FG,h}}{TM_{RG,h}}</math></td><td>14</td></tr></table>	Step 6	Eq.No.	$\eta_{Flare,h} = 1 - \frac{TM_{FG,h}}{TM_{RG,h}}$	14	
Step 6	Eq.No.					
$\eta_{Flare,h} = 1 - \frac{TM_{FG,h}}{TM_{RG,h}}$	14					
	<table><tr><td>Step 7</td><td>Eq.No.</td></tr><tr><td><math>PE_{flare,h} = \sum_{h=1}^{8760} TM_{RG,h} * (1 - \eta_{flare,h}) * \frac{GWP_{CH4}}{1000}</math></td><td>15</td></tr></table>	Step 7	Eq.No.	$PE_{flare,h} = \sum_{h=1}^{8760} TM_{RG,h} * (1 - \eta_{flare,h}) * \frac{GWP_{CH4}}{1000}$	15	
Step 7	Eq.No.					
$PE_{flare,h} = \sum_{h=1}^{8760} TM_{RG,h} * (1 - \eta_{flare,h}) * \frac{GWP_{CH4}}{1000}$	15					
	<p>“Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”. In the PDD the following formula is described:</p> $BE_{CH4,SWDS,y} = \phi * (1 - f) * GWP_{CH4} * (1 - OX) * \frac{16}{12} * F$					

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		$*DOC_j * MCF * \sum_{j=1}^J \sum_i W_{j,i} * DOC_j * e^{-\lambda(t-x)} * (1 - e^{-\lambda t})$ <p><b>“Tool for calculation of emission factor for electricity systems”</b></p> <p>In the PDD the following formula is described:</p> $EF_{grid} = wOM * EF_{OM} + wBM * EF_{BM}.....Equation (7)$ <p>In Annex 3, the calculations of the Emission Factor for the electricity system are described.</p> <p><b>“Tool to calculate project emissions from electricity consumption”</b></p> <p>In the PDD the following formula is described:</p> $PE_{EC,y} = EC_{PJ,y} * EF_{grid} * (1 + TDL_y)..... Equation (9)$ <p><b><u>Further request from the DOE</u></b></p> <ol style="list-style-type: none"> <li>Ok. The formulae were added to the PDD.</li> <li>Ok. The formulae were added to the PDD.</li> <li>The formulae were added, nevertheless please use the most updated data source from IPCC reference (2006).</li> <li>Ok. The formulae were added to the PDD.</li> </ol>	
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		<p><b><u>Response to further request</u></b></p> <p>c) Source IPCC 2006.</p>															
<p><b><u>Corrective Action Request No.7.</u></b></p> <p>The first order decay model used in the PDD is US EPA model. The methodology implies the use of the “tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”. Please correct the PDD with the correct model.</p>	B.6.1.2	<p>The methodology used was the “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”. The PDD was corrected.</p>	<p><input checked="" type="checkbox"/></p> <p>The information was corrected in the PDD and according to the correct Tool.</p>														
<p><b><u>Corrective Action Request No.8.</u></b></p> <p>Please include this parameter in section B.6.2 in the PDD.</p>	B.6.2.1	<p>This parameter was included in the section B.6.2.</p> <table border="1"> <tr> <td>Data / Parameter:</td> <td>BECH4SWDS<sub>y</sub></td> </tr> <tr> <td>Data unit:</td> <td>tCO2e</td> </tr> <tr> <td>Description:</td> <td>Methane generation from the landfill in the absence of the project activity at year y.</td> </tr> <tr> <td>Source of data used:</td> <td>Calculated as per “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”</td> </tr> <tr> <td>Value applied:</td> <td>See B.6.3 and Annex 3.</td> </tr> <tr> <td>Justification of the choice of data or description of measurement methods and procedures actually applied :</td> <td>As per “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”</td> </tr> <tr> <td>Any comment:</td> <td>Used for ex-ante estimation of the amount of methane that would have been destroyed/combusted during the year.</td> </tr> </table>	Data / Parameter:	BECH4SWDS <sub>y</sub>	Data unit:	tCO2e	Description:	Methane generation from the landfill in the absence of the project activity at year y.	Source of data used:	Calculated as per “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”	Value applied:	See B.6.3 and Annex 3.	Justification of the choice of data or description of measurement methods and procedures actually applied :	As per “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”	Any comment:	Used for ex-ante estimation of the amount of methane that would have been destroyed/combusted during the year.	<p><input checked="" type="checkbox"/></p> <p>The parameters were included in the PDD and according to the Methodology and tools.</p>
Data / Parameter:	BECH4SWDS <sub>y</sub>																
Data unit:	tCO2e																
Description:	Methane generation from the landfill in the absence of the project activity at year y.																
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Justification of the choice of data or description of measurement methods and procedures actually applied :	As per “Tool to determine methane emissions avoided from dumping waste at a solid waste disposal site”																
Any comment:	Used for ex-ante estimation of the amount of methane that would have been destroyed/combusted during the year.																
<p><b><u>Corrective Action Request No.9.</u></b></p> <p>Please correct the emission factor of the grid with the most updated information.</p>	B.6.2.2	<p>Corrected, updated value is 538 tCO2/GWh. The emission factor of the grid was corrected, calculation is showed in the Annex 3. Table A3-14.- Emission Factor for Electricity Generation in the Mexican Grid (EFgrid).</p>	<p><input checked="" type="checkbox"/></p> <p>The last version of the PDD, as well as the baseline and the emission factor calculations were revised and they are considered to be clear and complete.</p>														

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		<p><b>Emission Factor for Electricity Generation in the Mexican Grid (EFgrid)</b></p> <p>The grid emission factor is calculated based on data of the last versions of the Electricity Sector Prospective developed by the Mexican Secretary of Energy (SENER).</p> <p>The grid emission factor is calculated as follows:</p> $EF_{grid} = wOM * EF_{OM} + wBM * EF_{BM}$ <p>Where</p> <table><thead><tr><th>Where</th><th>Description</th></tr></thead><tbody><tr><td><i>EF<sub>OM</sub></i></td><td>= Operating margin emission factor (tCO<sub>2</sub>/MWh)</td></tr><tr><td><i>EF<sub>BM</sub></i></td><td>= Build margin emission factor (tCO<sub>2</sub>/MWh)</td></tr><tr><td><i>wOM</i> and <i>wBM</i></td><td>= Relative weights assumed to be equal to 0.5</td></tr></tbody></table> <p><u>Operating Margin emission factor (EF<sub>OM</sub>) is calculated as follows</u></p> <p><b>Step 1: Calculation of the operating margin emission factor</b></p> <p>Four different procedures are indicated for determining the operating margin emission factor. These are denominated:</p> <p><b><u>Further request from the DOE</u></b></p> <p>Data from the mexican grid and calculations are up-dated; nevertheless please use the most updated data source from IPCC reference (2006).</p> <p><b><u>Response to further request</u></b></p> <p>Source IPCC 2006</p>	Where	Description	<i>EF<sub>OM</sub></i>	= Operating margin emission factor (tCO <sub>2</sub> /MWh)	<i>EF<sub>BM</sub></i>	= Build margin emission factor (tCO <sub>2</sub> /MWh)	<i>wOM</i> and <i>wBM</i>	= Relative weights assumed to be equal to 0.5	
Where	Description										
<i>EF<sub>OM</sub></i>	= Operating margin emission factor (tCO <sub>2</sub> /MWh)										
<i>EF<sub>BM</sub></i>	= Build margin emission factor (tCO <sub>2</sub> /MWh)										
<i>wOM</i> and <i>wBM</i>	= Relative weights assumed to be equal to 0.5										
<p><b><u>Corrective Action Request No.10.</u></b></p> <p>The data is consistent with other chapters of the PDD, nevertheless please correct it according to the tools.</p>	B.6.4.4	<p>Data is consistent with other chapters of the PDD.</p> <p><b><u>Further request from the DOE</u></b></p> <p>In Table 6, in section B.6.4, the value of” Net ER by electricity generation tCO<sub>2e</sub>” should only include Electricity generated by the project activity (8,660 MWh/y) multiplied by the Emission Factor. In this table was identified, that the project emissions from electricity are double counted in BEy and in PEy. Please correct the</p>	<p><input checked="" type="checkbox"/></p> <p>Information in chapter B.6.4 was corrected and was corroborated with the project spreadsheets</p>								

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		BEy and ERy accordingly within the PDD.  <b><u>Response to further request</u></b> Modified, please see Baseline Emissions Culiacán file	
<b><u>Corrective Action Request No.11.</u></b> Please include the missing parameters in section B.7.1 in the PDD.	B.7.1.1	<p>Missing Parameters are included in the Section B.7.1</p> <p><b><u>Further request from the DOE</u></b></p> <p>1.- Please submit to the DOE the technical features of the Gas Analyzer provided by the manufacturer.</p> <p>2.- Please include the parameter of “MGPR,y Amount of methane generated during year y of the project activity” in this section.</p> <p>3.- Please include the parameter of “<math>\eta_{\text{flare}, h}</math> Flare efficiency in hour <math>h</math> based on measurements or default values” in this section.</p> <p>4.- Please justify the chosen data used in the parameter of “<math>FV_{RG, h}</math> Volumetric flow rate of the residual gas in dry basis at normal (NTP) conditions in the hour <math>h</math>”.</p> <p>Clarify why it is assumed that 20 % of the total landfill gas captured per year will be sent to the flare.</p> <p><b><u>Response to further request</u></b></p> <p>1.- Please see file “Final Norte Proposal Culiacan”, the flare efficiency is 99%, page 3 and also the “Norte Landfill” pdf file for specifications.</p> <p>2.- Included section B.7.1</p> <p>3.- Included section B.7.1</p> <p>4.- The minimum volume of methane necessary for generating 1 MW, is 80% of the total.</p>	<p><input checked="" type="checkbox"/></p> <p>All the monitoring parameters are included in the PDD including correct and clear information about the monitoring.</p>



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		Source in PDD, page 48: "Please see file "Baseline Emissions Culiacan" (section electricity)".	
<b><u>Corrective Action Request No.12.</u></b> Please include the note: The GWP shall be updated accordingly to any future COP/MOP decisions.	B.7.2.1	Note included in section B.6.2: "The GWP shall be updated accordingly to any future COP/MOP decisions".	<input checked="" type="checkbox"/> The note is included in the PDD.
<b><u>Corrective Action Request No.13.</u></b> Please include the e-mail address from the contact person.	F.1.2	E-mail address from the contact person is included: <a href="mailto:amartinezmu@gen.tv">amartinezmu@gen.tv</a>	<input checked="" type="checkbox"/> The mail address was added to the PDD.
<b><u>Corrective Action Request No.14.</u></b> Please include all the parameters to be monitored as mentioned in section B.7.1	F.4.1	The parameters to be monitored as mentioned in section B.7.1, are included in the Annex 4.  <b><u>Further request from the DOE</u></b> Please correct according the further request of the Corrective Action Request No. 11  <b><u>Response to further request</u></b> Included page 81 and 83	<input checked="" type="checkbox"/> The last version of the PDD includes all the monitoring parameters in both sections.
<b><u>Corrective Action Request No.15.</u></b> Please include this criterion in section B.2, in order to justify the applicability of the tool.	G.1.2  B.2	Included, page 9.  "ACM0001 also considers the project emissions from flaring of the residual gas stream and refers for its determination to the procedure described in the <i>"Tool to determine project emissions from flaring gases containing methane"</i> , which is applicable given that the LFG produced contains methane."  Consequently, ACM0001 is considered to be the most	<input checked="" type="checkbox"/> The information is included in the PDD.

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		<p>appropriate methodology for the proposed project.</p> <p><b><u>Further request from the DOE</u></b> Please include the applicability of each tool, according to comments in table 1 of this protocol, identified as CAR 16.</p> <p><b><u>Response to further request</u></b> Included page 9 of the PDD, and option c) was deleted, because it does not apply.</p>	
<b><u>CRs</u></b>			
<p><b><u>Clarification Request No. 1.</u></b> Please submit a schedule for the implementation of the project to the DOE.</p>	A.4.3.10	<p>Schedule contained in file "Culiacan Schedule 01-2008.pdf". The Schedule was sent to the DOE.</p> <p><b><u>Further request from the DOE</u></b> Please submit to the DOE this Schedule.</p>	<p><input checked="" type="checkbox"/></p> <p>The project schedule was revised and it is consistent with the project timeline in the PDD.</p>
<p><b><u>Clarification Request No. 2.</u></b> Please clarify and correct as needed whether the project activity CO2 and the CH4 due to LFG combustion for power generation will be included or not in section B.3 in the PDD.</p>	B.3.6	<p>Corrected in the PDD.</p>	<p><input checked="" type="checkbox"/></p> <p>The information was clarified in the PDD.</p>
<p><b><u>Clarification Request No. 3.</u></b> As seen on-site, currently there is any capture and/or burn of the LFG. Please correct in the PDD page 12, which implies some limited LFG burning.</p>	B.4.3	<p>Corrected in the PDD. The quantity of landfill gas burned was eliminated.</p> <p><b><u>Further request from the DOE</u></b></p> <ul style="list-style-type: none"> <li>In last version of the PDD, page 14, it is stated that: "While NOM-083-SEMARNAT-2003 does not indicate a mandatory requirement for LFG capture and flaring, the current situation implies some lim-</li> </ul>	<p><input checked="" type="checkbox"/></p> <p>The information was clarified in the PDD.</p>

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		<p>ited LFG burning, without any active system for capturing LFG”</p> <p>As seen on-site, there is any LFG burning. Please correct the paragraph above.</p> <p><b><u>Response to further request</u></b></p> <p>It has been corrected page 14:</p> <p>While NOM-083-SEMARNAT-2003 does not indicate a mandatory requirement for LFG capture and flaring, currently there is any capture and/or burn of the LFG</p>	
<p><b><u>Clarification Request No. 4.</u></b></p> <p>Please clarify if the calculation of investment costs includes the carbon credit revenues. Please sent to the DOE the excel spread sheet with the calculations of IRR.</p>	B.5.7	<p>Yes, in the case of the financial analysis with carbon credits those revenues were considered, as showed in the corresponding spreadsheet. Spreadsheet with and without credit revenues were sent to the DOE.</p> <p><b><u>Further request from the DOE 1</u></b></p> <ul style="list-style-type: none"> <li>a) Which is the source of the statement to assume that 50% of methane is contained in the Bio-gas? Please include this information in the PDD section B.7.1. Furthermore in File “Evaluacion con bonos final”, sheet “GEN ENERGIA” the methane concentration is stated as 65%. Please correct it.</li> <li>b) Which is the source of the price of the electricity? Please include this source in the PDD</li> <li>c) Values in column “CAPTACION DE METANO” in sheet “ENERGIA GENERADA” do not correspond to those values in column “Flujo Metano Capturado” in sheet “BONOS”.</li> </ul>	<p><input checked="" type="checkbox"/></p> <p>The information was clarified in the PDD and corroborated with the corresponding spreadsheets.</p>

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		<p>d) In order to achieve conservativeness, please use a CER price based in actual data. Please include the source of this price in the PDD.</p> <p><b><u>Response to further request</u></b></p> <p>a) <b>See page 43 of the PDD. The following information was integrated: "In the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Chapter 3 Solid Waste Disposal, table 3.5, pag 3.27) the Fraction of CH<sub>4</sub> in generated Landfill Gas (F) = 0.5". The 65% is of capturing methane not methane concentration.</b></p> <p>b) <b>**<a href="http://www.sener.gob.mx/webSener/res/PE_y_DT/ee/Precios_Medios1.xls">http://www.sener.gob.mx/webSener/res/PE_y_DT/ee/Precios_Medios1.xls</a> See page 16 of the PDD</b></p> <p>c) <b>It has been corrected see the same file</b></p> <p>d) <b>The source has been provided see page 16 of the PDD</b></p> <p><b><u>Further request from the DOE 2</u></b></p> <p>The PDD version 1 uploaded for GSP the benchmark value was set to 17.5%. However, no information was provided or any other source found to properly justify the value.</p> <p>The correct source about the benchmark should be addressed in the new version of the PDD, and please justify that this value is the most suitable in accordance with your financial analysis.</p> <p><b><u>Response to further request 2</u></b></p> <p>The benchmark value was corrected by following the guidelines of the "Tool for the demonstration and as-</p>	<p>The correct value of benchmark has been included in the PDD from version 5 dated 22/07/09 onwards, a correct source has been provided and this was assessed by the audit team, so the further request 2 can be considered closed.</p> <p><input checked="" type="checkbox"/></p>
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		<p>assessment of additionality" (Version 5.2). From this Tool, option a) was used by the project proponent to determine the most suitable discount rate and benchmark value to be used for the benchmark analysis:</p> <p><i>"(a) Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type, as substantiated by an independent (financial) expert or documented by official publicly available financial data "</i></p> <ul style="list-style-type: none"> <li>- Government bond rates: In February 2008, the Bank of Mexico indicated that the rates of 364 day for Treasury Certificates (CETES) in Mexico were 7.4%.</li> <li>- Country risk: Based on a country risk classification carried out by the "Organisation for Economic Co-operation and Development (OECD)" the country risk premium for Mexico is 2.00% for years 2007 and 2008</li> </ul> <p>Thus, the benchmark value was corrected and defined as 9.4% in the newest version of the PDD.</p> <p>Government bond rates can be consulted at: &lt;<a href="http://www.banxico.org.mx/portalesEspecializados/tasasInteres/valoresgubernamentales.html">http://www.banxico.org.mx/portalesEspecializados/tasasInteres/valoresgubernamentales.html</a>&gt;</p> <p>Information regarding the OECD country risk classification can be consulted at: &lt;<a href="http://www.oecd.org/document/49/0,2340,en_2649_34171_1901105_1_1_1_1,00.html">http://www.oecd.org/document/49/0,2340,en_2649_34171_1901105_1_1_1_1,00.html</a>&gt;</p>	
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		<p><b><u>Further request from the DOE 3</u></b></p> <p>In accordance with the PDD version 1 uploaded for GSP, the total investment would be 2.2 million US dollars (taking into account that 60% is for equipment). However, no source was presented to properly justify this amount.</p> <p>Due to this the correct investment amount should be addressed in the new version of the PDD, and please justify that this value is the most suitable following the “Tool for the demonstration and assessment of additionality” (Version 05.2).</p> <p><b><u>Further request from the DOE 4</u></b></p> <p>In addition the PDD version 1 no information for O&amp;M was displayed, following the “Tool for the demonstration and assessment of additionality” (Version 05.2) all relevant costs (including, for example, the investment cost, the operations and maintenance costs), and revenues should be clearly displayed, a reliable source should be provided to the DOE and addressed in the new version of PDD.</p> <p><b><u>Response to further request 3 and 4</u></b></p> <p>Proper correction to the investment amount, as well as sources, references and support documentation were indicated and delivered to the DOE for the newest version of the PDD.</p> <p>This is also indicated in table 2 of the new version of the PDD for transparency purposes (see pages 18 to 20).</p>	<p>A clear information about the investment amount has been correctly addressed in the PDD from version 5 dated 22/07/09 onwards, all related documentation and sources have been indicated in table 2 pages 18 to 20 of the PDD, and such documents were provided to the audit team addressed in the annex 2, so further requests 3 and 4 can be considered closed. Further validation information on the input values is also included in the Validation Report, chapter 3.6.3.</p> <p style="text-align: right;">☑</p>
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		<p><b><u>Further request from the DOE 5</u></b></p> <p>The discussion submitted in the version 1 of the PDD uploaded for GSP the Step 4 of Common practice analysis should be completed.</p> <p>There are currently 12 LFG projects of large scale in Mexico registered under CDM , in fact several are under Validation.</p> <p>Please submit a detail about the situation in Mexico regarding LFG recovery.</p> <p>As reference please see the request for review raised for the project 1699 (LFG in Puerto Vallarta), where the EB request information on common practice.</p> <p><b><u>Response to further request 5</u></b></p> <p>It has been assessed and improved the discussion of the common practice of other landfills in Mexico where the common practice on landfills that receive more than 400 tonnes of waste per day is to flare the biogas in a passive manner. – See page 23 of the newest version of the PDD.</p> <p>It has been also added information regarding other similar CDM projects in Mexico as additional information to conclude that practically all these projects of bio-gas collection and flaring/use are being presented under the CDM and materialize due to carbon credits revenues only.</p>	<p>Reliable information has been addressed in the PDD from version 5 dated 22/07/09 onwards, so the further request 5 can be considered closed.</p> <p><input checked="" type="checkbox"/></p>
<p><b><u>Clarification Request No. 5.</u></b></p> <p>Please indicate if the starting date of the project activity reflects the earliest of the dates at which the implementation or the construction</p>	C.1.1	<p>It reflects the beginning of a real action of the project activity.</p> <p><b><u>Further request from the DOE</u></b></p>	<p><input checked="" type="checkbox"/></p> <p>The information was corrected in the PDD. Furthermore evidence on the starting</p>

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or real action of the project activity begins.		<p>According to the EB33 paragraph 76 and EB 38 par 59, the starting date of project activity, section C.1.1 should address "...the earliest of the dates at which the implementation or construction or real action of the project activity begins".</p> <p>Please correct the project starting date and the crediting period starting date, section C.2.2.1 accordingly, they should not be the same.</p> <p><b><u>Response to further request</u></b>  <b>It has been corrected see page 58 of the PDD</b></p>	date of the project activity was submitted to the DOE.
<p><b><u>Clarification Request No. 6.</u></b></p> <p>Please clarify why the parameter <math>PE_{FC,j,y}</math> is going to be monitored if it is assumed in section B.6.1 that there will be any heat consumption.</p>	G.2.8	<p>For ex-ante calculation purposes, there will be no fossil fuel consumption at project scenario, but any eventual fossil fuel consumption during project activity will be accounted for.</p> <p><b><u>Further request from the DOE</u></b></p> <p>For the accounting of those eventual fossil fuel consumption it is necessary to include in the PDD the next information:</p> <ul style="list-style-type: none"> <li>-Applicability, section B.2</li> <li>-Formulae, section B.6.1</li> <li>-Validation parameters and values, section B.6.2</li> <li>-Monitoring parameters, section B.7.1</li> </ul> <p><b><u>Response to further request</u></b>  <b>It has been corrected see page 10, 19, 37, 46 &amp; 47</b></p>	<p><input checked="" type="checkbox"/></p> <p>The information is included in the PDD.</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:  
Culiacan Northern Landfill Gas Project




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

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Ref. No.	Issuance and/or submission date(dd/mm/yy yy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
1	01/2008	PDD "Culiacan Northern Landfill Gas Project", Version 01	Promotora Ambiental SAB de CV	GSP PDD
2	28/05/2009	Approved consolidated baseline and monitoring methodology ACM0001 "Consolidated baseline methodology for landfill gas project activities"– Version 11	UNFCCC	
3	30/11/2007 19/11/2007 22/06/2007 19/10/2007 22/06/2007 15/12/2006	Tool for the demonstration and assessment of additionality, version 05.2  Tool to determine methane emissions avoided from disposal of waste at a solid waste disposal site, version 4.  Tool to calculate project or leakage CO2 emissions form fossil fuel combustion, version 2.  Tool to calculate the emission factor for an electricity system, version 01.1.  "Tool to calculate baseline, project and/or leakage emissions from electricity consumption". , version 1.  Tool to determine project emissions from flaring gases containing methane, version 1.	UNFCCC	
4	02/04/2008	Participant list of on-site interviews	TÜV SÜD	
5	02/04/2008- 03/04/2008	On-site interviews conducted by TÜV SÜD. <b>Validation Team:</b> Arturo Lemus                      TÜV SÜD America de Mexico Cesar Villarreal                      TÜV SÜD America de Mexico <b>Interviewed Persions:</b>	TÜV SÜD	

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Ref. No.	Issuance and/or submission date(dd/mm/yy yy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
		Alfonso Martínez      Promotora Ambiental SAB de CV Carlos Sánchez      Promotora Ambiental SAB de CV Luciano Zavala      Culiacan Municipality Ubaldo Inclán      Cantor CO <sub>2e</sub> Jorge Ortiz      John Zink José Luis Dávila      SCS Engineers Miguel Nájera      Culiacan Landfill		
6	06/08/2008	Culiacan chronogram01-2008	Promotora Ambiental SAB de CV and SCS Engineers	
7	05/02/2008 14/08/2009	Letter of Project Approval (for Promotora Ambiental SAB de CV) Letter of Project Approval (for Promotora Ambiental de la Laguna S.A. de C.V.)	Mexican DNA: Interministerial Commission on Climate Change	
8	2006 2007 2008	Prospectiva del Sector Eléctrico 2006-2015 ( <a href="http://www.energia.gob.mx/webSener/res/PE_y_DT/pub/prospsectelec2006.pdf">http://www.energia.gob.mx/webSener/res/PE_y_DT/pub/prospsectelec2006.pdf</a> ) Prospectiva del Sector Eléctrico 2007-2016 <a href="http://www.sener.gob.mx/webSener/res/PE_y_DT/pub/Prospectiva%20Sector%20Electrico%20FINAS.pdf">http://www.sener.gob.mx/webSener/res/PE_y_DT/pub/Prospectiva%20Sector%20Electrico%20FINAS.pdf</a> Prospectiva del Sector Eléctrico 2008-2017 <a href="http://www.sener.gob.mx/webSener/res/PE_y_DT/pub/Prospectiva%20SE%202008-2017.pdf">http://www.sener.gob.mx/webSener/res/PE_y_DT/pub/Prospectiva%20SE%202008-2017.pdf</a>	CFE (National Energy Ministry)	Information from the Mexican grid to calculate the Emission Factor from the grid

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9	02/04/2008	Environmental Impact Assessment exemption	Environmental Ministry of Culiacán	
10	2004	Automated System for Monitoring Extraction of Gas (AEMS)	Landtech	Equipment Technical Information
	2004	Portable Gas Analyzer Instrumentation (GEM 2000 PLUS)	Landtech	
	21/04/2008	Proposal for Norte Landfill in Culiacan	John Zink	
	21/04/2008	Project Specification Sheet List	John Zink	
11	08/06/2009	Baseline emissions, project emissions and emission reduction calculation spreadsheet "CERs_Culiacan_v1_CO2GSI_v4".	CO <sub>2</sub> Solutions	Emission Reduction assessment
12	08/06/2009	"Cash Flow_CULIACAN_CO2GSI_v4" "Cash Flow_CULIACAN_CO2GSI_v4_benchmark" "Cash Flow_CULIACAN_CO2GSI_v4_sensitivity"	CO <sub>2</sub> Solutions	Financial Analysis
13	02/2008	<a href="http://www.banxico.org.mx/portalesEspecializados/tasasInteres/valoresgubernamentales.html">http://www.banxico.org.mx/portalesEspecializados/tasasInteres/valoresgubernamentales.html</a>  <a href="http://www.oecd.org/document/49/0,2340,en_2649_34171_1901105_1_1_1_1_00.html">http://www.oecd.org/document/49/0,2340,en_2649_34171_1901105_1_1_1_1_00.html</a>	Banxico Organization for Economic Co-operation and Development (OECD)	Treasury Certificates rate and Country risk premium
14	06/05/2008	Proforma invoice	Landtech	Purchase order of equipment to be used.

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15	05/2007	"Waste Characterization Summary_Culiacan"	Auditoria y Gestión Ambiental Company	Municipal Solid Waste Characterization for the Northern Landfill Project
16	02/2008	Gas collection system design for Relleno Sanitario Norte, Culiacan, Mexico, technical report.	SCS Engineers	Baseline information
17	30/11/2007	List of assistance Stakeholder Meeting	Promotora Ambiental de la Laguna SA de CV	Stakeholder Meeting
18	12/2007	Complete Culiacan Landfill Design Report.pdf	SCS Energy	Landfill Gas Collection System
19	25/05/2007	"Convocatoria_Culiacan.pdf"	Culiacan Municipality	Official Announcement of the tender to develop the CDM project activity
20	21/09/2007	"Contrato Biogas Culiacán.pdf"	Culiacan Municipality and Promotora Ambiental de la Laguna SA de CV	Signed contract between Culiacan Municipality and the project proponent
21	26/10/2007	"PASA - SCS- Contract Signature Page 10-26-07.pdf"	Promotora Ambiental de la Laguna SA de CV and SCS Engineers	Professional services for the develop of the Project activity
22	2007	<a href="http://www.sener.gob.mx/webSener/res/PE_y_DT/ee/Precios_Medios1.xls">http://www.sener.gob.mx/webSener/res/PE_y_DT/ee/Precios_Medios1.xls</a>	Energy Ministry in Mexico	Annual electricity price, 2007 annual data
23	12/2007	<a href="http://www.sat.gob.mx/sitio_internet/asistencia_contribuyente/informacion_frecuente/tipo_cambio/42_8980.html">http://www.sat.gob.mx/sitio_internet/asistencia_contribuyente/informacion_frecuente/tipo_cambio/42_8980.html</a>	SAT (Treasury Ministry in Mexico)	Currency exchange
24	25/05/2007	PASA costs.tif	Promotora Ambiental SAB de	Resume of the investment required to install the project

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Ref. No.	Issuance and/or submission date(dd/mm/yy)	Title/Type of Document	Author/Editor/ Issuer	Additional Information (Relevance in CDM Context)
			CV	
25	21/07/09	SCS-Culiacán letter.pdf	SCS Engineers	Information regarding typical costs on energy projects
26	16/03/2010 06/07/2010	PDD “Culiacan Northern Landfill Gas Project”, Version 05.1 PDD “Culiacan Northern Landfill Gas Project”, Version 05.2	Promotora Ambiental de la Laguna SA de CV	PDD for request for Registration
27	20/10/2004	Regulation NOM-083-SEMARNAT-2003, available at <a href="http://www.semarnat.gob.mx/leyesy normas/Normas%20Oficiales%20Mexicanas%20vigentes/NOM-083-SEMAR-03-20-OCT-04.pdf">http://www.semarnat.gob.mx/leyesy normas/Normas%20Oficiales%20Mexicanas%20vigentes/NOM-083-SEMAR-03-20-OCT-04.pdf</a>	Mexico’s Environmental Ministry (SEMARNAT)	Regulation for final disposal sites
28	11/05/2009	Modalities of Communication Form	Project proponent	
29	27/12/2006	Diario Oficial de la Federacion_(taxes-article 10).pdf	Mexico’s Government	Taxes rates
30	2007-2008 02/06/2008	<a href="http://www.banxico.org.mx/PortalesEspecializados/inflacion/inflacion.html">http://www.banxico.org.mx/PortalesEspecializados/inflacion/inflacion.html</a> , and <a href="http://www.banxico.org.mx/documents/{05E17D58-E68F-24B2-6115-3F0B0F3F9CF3}.pdf">http://www.banxico.org.mx/documents/{05E17D58-E68F-24B2-6115-3F0B0F3F9CF3}.pdf</a>	Mexico’s Government	Mexican Inflationfor 2007 an 2008 and expectation for the next years.
31	2005	“Manejo RSU_SEDESOL 2005.pdf”	SEDESOL (Social Development Ministry in Mexico)	Management of urban solid waste
32	2007	Perry’s Chemical Engineers Handbook (8th edition), chapter 9-17	On W. Green Robert H. Perry	Validation of “Contingencies”
33		“Ley del Servicio Público de Energía Eléctrica” No. DOF 22-12-1993 (Electrical Energy Public Service Law)	Cámara de Diputados del H. Congreso de la Unión	