



ASSESSMENT

REGARDING POST REGISTRATION CHANGES

PETRAMAS S.A.C.

MODELO DEL CALLAO LANFILL GAS CAPTURE
AND FLARING SYSTEM

Report No: 8000448412 - 15/059

Date: 2015-06-01

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Assessment Report on post registration changes	Report No.	Rev. No.	Date of 1st issue:	Date of this rev.
	8000448412 - 15/059	0	2015-06-01	2015-06-01
Project:	Title:		Registr. date:	UNFCCC-No.:
	Modelo del Callao Landfill Gas Capture and Flaring System		2012-08-20	5619
Project Participant(s):	Host Country PP – Name:		Host Party:	
	PETRAMAS S.A.C.		Peru	
	Investor PP(s) – Name(s):		Investor Party(ies)	
	N/A		N/A	
Applied methodology/ies:	Title:		No.:	Scope:
	Consolidated baseline and monitoring methodology for landfill gas project activities		ACM0001 ver. 11	13.1
Post Registration Changes:	Type of requested changes		Number of changes	Prior Approval required
	<input type="checkbox"/> Temporary deviations from the MP		-	<input type="checkbox"/>
	<input type="checkbox"/> Temporary deviations from the MM		-	<input type="checkbox"/>
	<input type="checkbox"/> Corrections that do not affect the project		-	<input type="checkbox"/>
	<input type="checkbox"/> Change to the start date of the crediting p.		-	<input type="checkbox"/>
	<input checked="" type="checkbox"/> Permanent changes from the MP		-	<input checked="" type="checkbox"/>
	<input type="checkbox"/> Permanent changes from the MM		-	<input type="checkbox"/>
	<input type="checkbox"/> Design changes to the project activity/PoA		-	<input type="checkbox"/>
<input type="checkbox"/> Changes specific to A/R		-	<input type="checkbox"/>	
Revised PDD:	Title:	Version:	Attached in TC:	Attached clean:
	Modelo del Callao Landfill Gas Capture and Flaring System	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Assessment team / Technical Review and Final Approval	Assessment Team:		Technical review:	Final approval:
	Raul Gonzalez Mitre - TL, Oliver Quireza - TM		Sergio Cruz	Stefan Winter
Assessment Opinion:	<input checked="" type="checkbox"/>	The post registration changes require prior Approval by the Board		
	<input type="checkbox"/>	The post registration changes do not require prior Approval by the Board		
Document information:	Filename:			No. of pages:
	2015_06_01_Assessment_PRC_Callao.docx			24

Abbreviations

CA	Corrective Action / Clarification Action
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
CO₂	Carbon dioxide
CO_{2e}	Carbon dioxide equivalent
CL	Clarification Request
CP	Certification Program
DNA	Designated National Authority
DVerR	Draft Verification Report
EB	CDM Executive Board
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse gas(es)
MP	Monitoring Plan
MR	Monitoring Report
N/A	Not applicable
PA	Project Activity
PDD	Project Design Document
PoA	Program of Activities
PP	Project Participant
PPA	Power Purchase Agreement
PRC	Post Registration Changes
QA/QC	Quality Assurance / Quality Control
S/N	Serial Number
UNFCCC	United Nations Framework Convention on Climate Change
VT	Verification/Validation Team
VVS	Validation and Verification Standard
XLS	Emission Reduction Calculation Spread Sheet

Table of Contents	Page
1 OBJECTIVE / SCOPE	5
2 GENERAL CHARACTERISTICS	6
2.1 Project Characteristics	6
2.2 Overview of Post Registration Changes	6
2.3 Assessment team members and technical reviewers	7
2.4 Assessment Steps	8
2.5 Review of Documents	8
2.6 Follow-up Interviews	8
2.7 Resolution of Clarification and Corrective Action Requests	9
2.7.1 Definition	9
2.7.2 Assessment	9
2.8 Technical review	10
2.9 Final approval	10
3 CHANGES THAT DO NOT AFFECT THE PROJECT DESIGN.....	11
4 CHANGE TO THE START DATE OF THE CREDITING PERIOD.....	12
4.1 Related Findings	12
5 CHANGES TO THE PROJECT / PROGRAMME DESIGN.....	13
5.1 Assessment of Changes	13
5.2 Related Findings	15
6 SUMMARY OF ASSESSMENT OPINIONS.....	17
7 REFERENCES	18
APPENDIX 1: ASSESSMENT OF FINANCIAL PARAMETERS.....	22
APPENDIX 2: ASSESSMENT OF BARRIER ANALYSIS.....	23
APPENDIX 3: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL.....	24

1 OBJECTIVE / SCOPE

Petramas S.A.C. has commissioned the TÜV NORD JI/CDM Certification Program (CP) to assess post registration changes of the project

“Modelo del Callao Landfill Gas Capture and Flaring System”

This report serves for all kind of post registration changes as defined in the PS.

This report serves as an annex to the Post-registration changes request form (CDM-PRC-FORM).

2 GENERAL CHARACTERISTICS

2.1 Project Characteristics

Essential data of the project is presented in the following Table 2-1.

Table 2-1: Project Characteristics

Item	Data
Project title	Modelo del Callao Landfill Gas Capture and Flaring System
Project type	<input checked="" type="checkbox"/> Standard <input type="checkbox"/> PoA
Project size	<input checked="" type="checkbox"/> Large Scale <input type="checkbox"/> Small Scale
Project Scope (according to UNFCCC sectoral scope numbers for CDM)	<input type="checkbox"/> 1 Energy Industries (renewable- /non-renewable sources)
	<input type="checkbox"/> 2 Energy distribution
	<input type="checkbox"/> 3 Energy demand
	<input type="checkbox"/> 4 Manufacturing industries
	<input type="checkbox"/> 5 Chemical industry
	<input type="checkbox"/> 6 Construction
	<input type="checkbox"/> 7 Transport
	<input type="checkbox"/> 8 Mining/Mineral production
	<input type="checkbox"/> 9 Metal production
	<input type="checkbox"/> 10 Fugitive emissions from fuels (solid, oil and gas)
	<input type="checkbox"/> 11 Fugitive emissions from production and consumption of halocarbons and hexafluoride
	<input type="checkbox"/> 12 Solvents use
	<input checked="" type="checkbox"/> 13 Waste handling and disposal
	<input type="checkbox"/> 14 Afforestation and Reforestation
	<input type="checkbox"/> 15 Agriculture
	<input type="checkbox"/> 16 Carbon capture and storage
Applied Methodology	ACM0001 ver. 11, Consolidated baseline and monitoring methodology for landfill gas project activities
Technical Area(s)	13.1 Waste Handling and disposal
CDM registration No.	5619
Crediting period	<input checked="" type="checkbox"/> Renewable Crediting Period (7 y) <input type="checkbox"/> Fixed Crediting Period (10 y)

For a detailed project description please refer to the registered PDD and/or the latest verification report (to which this report is attached).

2.2 Overview of Post Registration Changes

Within this report post registration changes as listed in Table 2-2 are assessed.

Table 2-2: Overview Post Registration Changes

#	Applicable as of / from - to	Type of post registration change ¹⁾	Description
1	2012-08-20	PCfrMP	The approach for monitoring of the methane destruction efficiency has been replaced from continuously to the use of the default value (90%) in accordance with the methodological tool to determine project emissions from flaring gases containing methane.

- 1) TDfrMP : Temporary deviation from registered monitoring plan
TDfMM : Temporary deviation from the monitoring methodology
CrPDD : Corrections to the registered PDD
ChSD : Change to the start date of the crediting period
PCfrMP : Permanent changes from registered Monitoring Plan
PCfMM : Permanent changes from Monitoring Methodology
CoPD : Changes to the project design of a registered project activity / PoA
CstAR : Changes specific to afforestation or reforestation

2.3 Assessment team members and technical reviewers

On the basis of a competence analysis and individual availabilities a assessment team, consistent of one team leader and 2 additional team members, were appointed. Furthermore also the personnel for the technical review and the final approval were determined.

The list of involved personnel, the tasks assigned and the qualification status are summarized in the table 2-3 below.

Table 2-3: Involved Personnel

	Name	Company	Function ¹⁾	Qualification Status ²⁾	Scheme competence ³⁾	Technical competence ⁴⁾	Verification competence ⁵⁾	Host country Competence	On-site visit
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Raul Gonzalez Mitre	BRTUV	TL	SA	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Oliver Quireza Campos	BRTUV	TM	A	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sergio Cruz	BRTUV	TR ^{B)}	SA	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Stefan Winter	TUV NORD CERT	TR/ FA ^{B)}	SA	<input checked="" type="checkbox"/>	13.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1) TL: Team Leader; TM: Team Member; TR: Technical review; OT: Observer-Team; OR: Observer-TR; FA: Final approval

2) GHG Auditor Status: A: Assessor; LA: Lead Assessor; SA: Senior Assessor; T: Trainee; TE: Technical Expert

3) GHG auditor status (at least Assessor)

4) As per S01-MU03 or S01-VA070-A2 (such as 1.1, 1.2, ...)

5) In case of verification projects

A) Team Member: GHG auditor (at least Assessor status), Technical Expert (incl. Host Country Expert or Verification Expert), not ETE

B) No team member

2.4 Assessment Steps

The *assessment of post registration changes* consisted of the following steps:

- Appointment of team members and technical reviewers
- A desk review of the registered and revised PDD^{/PDD/} submitted by the client and additional supporting documents
- On-Site assessment (if required)
- Background investigation and follow-up interviews with personnel of the project developer and its contractors,
- Resolution of corrective actions (CARs / CLs) (if any)
- Final reporting
- Technical review
- Final approval.

In this case all activities were carried out as part of the xth verification of this project activity.

2.5 Review of Documents

The registered as well as the revised PDD and supporting background documents related to the project design and the post registration changes were reviewed.

As far as required the assessment team used additional documentation by third parties like host party legislation, technical reports referring to the project design or to the basic conditions and technical data.

2.6 Follow-up Interviews

The validation team has carried out interviews in order to assess the information included in the project documentation and to gain additional information regarding the compliance of the project with the relevant criteria applicable for CDM.

During validation the validation team has performed interviews to confirm selected information and to resolve issues identified in the document review. The main topics of the interviews are summarized in table 2-4.

Table 2-4: Interviewed persons and interview topics

Interviewed Persons / Entities	Interview topics
Project proponent representatives Project consultant	- Details of the project validation and earlier verifications - Project history

Interviewed Persons / Entities	Interview topics
	<ul style="list-style-type: none"> - Technical details of plant - Intended / implemented changes from the previous project design - Impact of changes on the additionality justification - Impact on the monitoring of the project - Editorial issues of the revised PDD

A comprehensive list of all interviewed persons is part of section 7 'References'.

2.7 Resolution of Clarification and Corrective Action Requests

2.7.1 Definition

A **Corrective Action Request (CAR)** will be established where:

- mistakes have been made in assumptions, application of the methodology or the project documentation which will have a direct influence the project results,
- the requirements deemed relevant for validation of the intended / implemented changes,
- there is a risk that the changes cannot be approved by the UNFCCC or that emission reductions would not be able to be verified and certified after the implementation of the changes.

A **Clarification Request (CL)** will be issued where information is insufficient, unclear or not transparent enough to establish whether a requirement is met.

2.7.2 Assessment

After reviewing all relevant documents and taken all other relevant information into account, the assessment team issues all findings (in the course of a draft report, if applicable) and hands over the findings to the project proponent in order to respond on the issues raised and to revise the documentation accordingly.

The final reporting step starts after resolution of the raised CARs and CLs. In case the findings from CARs and CLs cannot be resolved by the project proponent or the proposed action related to the FARs raised cannot be assessed as adequate, no positive assessment opinion can be issued by the validation team.

The CAR(s) / CL(s) / FAR(s) are documented in the context of the respective chapters.

2.8 Technical review

Before submission of the final assessment report a technical review is carried out. The technical reviewer is a competent GHG auditor being appointed for the scope this project falls under. The technical reviewer is not considered to be part of the verification team and thus not involved in the decision making process up to the technical review.

As a result of the technical review process the assessment opinion as prepared by the validation team leader may be confirmed or revised. Furthermore reporting improvements might be achieved.

2.9 Final approval

After successful technical review of the final report an overall (esp. procedural) assessment of the requested post registration changes will be carried out by a senior assessor located in the accredited premises of TÜV NORD.

Only after this step the notification or the report can be forwarded to the UNFCCC (in case of a positive validation opinion).

3 CHANGES THAT DO NOT AFFECT THE PROJECT DESIGN

The post registration changes do not fall under this category.

4 CHANGE TO THE START DATE OF THE CREDITING PERIOD

The post registration changes do not fall under this category.

4.1 Related Findings

No findings have been identified in this context.

5 CHANGES TO THE PROJECT / PROGRAMME DESIGN

5.1 Assessment of Changes

Requested Deviation / Change #1

- Type of change(s):
- ☐ Temporary Deviation from Monitoring Plan
 - ☐ Temporary Deviation from Monitoring Methodology
 - ☐ Corrections that do not affect the project design
 - ☒ Permanent Change from Monitoring Plan
 - ☐ Permanent Change from Monitoring Methodology
 - ☐ Changes specific to afforestation or reforestation

A. Description of post registration change

Start Date: Please provide the start date of the change	2012-08-20	End Date: Please provide the end date of the change, if applicable	N/A
Description: Please give a detailed description of the change(s)	<p>The approach to determine the flare efficiency ($\eta_{\text{flare},h}$) has been changed. In the registered MP, the continuous monitoring of the $\eta_{\text{flare},h}$ was chosen. The changed MP applies the other option given by the "Tool to determine project emissions from flaring gases containing methane" which consider the application of $\eta_{\text{flare},h}$ values as follows:</p> <ul style="list-style-type: none"> 0% if the temperature in the exhaust gas of the flare (T_{flare}) is below 500 °C for more than 20 minutes during the hour h. 50%, if the temperature in the exhaust gas of the flare (T_{flare}) is above 500 °C for more than 40 minutes during the hour h, but the manufacturer's specifications on proper operation of the flare are not met at any point in time during the hour h. 90%, if the temperature in the exhaust gas of the flare (T_{flare}) is above 500 °C for more than 40 minutes during the hour h and the manufacturer's specifications on proper operation of the flare are met continuously during the hour h. 		

B. Assessment of post registration change – Permanent changes from MP or MM

MM compliance: Please check in case of changes to the registered MP, whether they are in compliance with the MM.	<p>The change of the monitoring of the $\eta_{\text{flare},h}$ is in line with the applicable MM as the chosen option (the use of a default value) is given by the methodological Tool to determine project emissions from flaring gases containing methane. The chosen option is project participants choice.</p>
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Requested Deviation / Change #1

Later version of MM: Please check in cases where compliance with a later version of the MM is demonstrated that the conservativeness of the monitoring and verification is not affected.	N/A
Accuracy: Please give a detailed assessment whether the change is likely to lead to a reduction in the accuracy of the ER calculation.	The change is not likely to lead to a reduction in the accuracy of the ER calculation because the change does not involve any equipment change or calibration plan modification. Furthermore the calculation is based on the procedures described in the Tool to determine project emissions from flaring gases containing methane. In addition, a continuous monitoring in compliance with manufacturer's specification of flare (temperature, flow rate of residual gas at the inlet of the flare) must be performed in order to be able to use the default value.
Conservative-ness: Please give a detailed assessment whether conservative assumptions or discount factors have been applied to ensure that ER will not be overestimated.	The change leads to a more conservative ER calculation because the applied default $\eta_{\text{flare,h}}$ (90%) for the calculation of PE is more conservative than the continuous monitoring of $\eta_{\text{flare,h}}$ which can reach 99%.
Appendix 1 PS: Check if the changes fall under one of the scenarios of appendix 1 of the PS.	The change in the monitoring and calculation method of the parameter $\eta_{\text{flare,h}}$ does not fall under one of the scenarios of Appendix 1 of the PS.
C. Revised PDD	
Rev. of PDD: Check whether the changes have been fully addressed in a revised PDD.	<input checked="" type="checkbox"/> The changes have correctly been reflected in the revised PDD. <input type="checkbox"/> A revision of the PDD is not required (in case of temp. changes). <input checked="" type="checkbox"/> The revised PDD has been forwarded in (i) track-change and (ii) clean version.
D. Prior Approval	
Prior approval: Assess whether the change requires prior approval of the board	<input checked="" type="checkbox"/> <i>The post registration change requires prior approval</i>

5.2 Related Findings

Finding	CAR B1	
Classification	CAR	CL
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	At Section B.6.1.3: if Steps 3 and 4 of the Tool are not applicable, the inclusion of the calculations have not been justified, neither the calculations excluded from the section.	
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	Since Steps 3 and 4 of the Tool are not applicable, the information about respective calculation has been deleted.	
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	Corrected section B.6.1.3 are in line with methodological tool as per project characteristics.	
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed	

Finding	CAR D1	
Classification	<input checked="" type="checkbox"/> CAR	<input type="checkbox"/> CL
Description of finding <i>Describe the finding in unambiguous style; address the context (e.g. section)</i>	The manufacturer's specifications for the operation of the flare and the required data and procedures to monitor these specifications are missing in the PDD.	
Corrective Action #1 <i>This section shall be filled by the PP. It shall address the corrective action taken in details.</i>	<p>The following has been included in Section B.6.1.3 (Step 1) and Section B.7.1 (parameter PEflare,y) of the PDD:</p> <p>"The approach selected to determine the flare efficiency is to use a 90% default value. Continuous monitoring of compliance with manufacturer's specification of flare (temperature, flow rate of residual gas at the inlet of the flare) will be performed. The manufacturer's operational manual of of flare¹, specify the following design parameters:</p> <ul style="list-style-type: none"> • Temperature of operation: from 1,400°F (760°C) to 1,800°F (982°C), with a shutdown at 2,000°F (1,093°C) • Flow rate of residual gas at the inlet of the flare is set at the maximum flow of 4,000 SCFM (6,430 Nm³/h) <p>If in a specific hour any of the parameters are out of the limit of</p>	

¹ See manufacturer's manual under the name "Callao_Flare Manual Spanish_Ztof"

Finding	CAR D1
	manufacturer's specifications, a 50% default value for the flare efficiency will be used for the calculations for this specific hour."
DOE Assessment #1 <i>The assessment shall encompass all open issues in annex A-1. In case of non-closure, additional corrective action and DOE assessments (#2, #3, etc.) shall be added.</i>	The manufacturer's specifications ^{/TECH/} for operation of the flare included in the sections B.6.1.3 and B.7.1 are in line with the applicable tool as per project methodological choices.
Conclusion <i>Tick the appropriate checkbox</i>	<input type="checkbox"/> Additional action should be taken (finding remains open) <input checked="" type="checkbox"/> The finding is closed

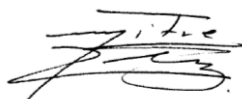
6 SUMMARY OF ASSESSMENT OPINIONS

The below listed changes have occurred after the registration of the project / PoA.

Type of Change occurred	Total No. of changes	No. of changes which require prior approval
<input type="checkbox"/> Temporary deviations from the MP		
<input type="checkbox"/> Temporary deviations from the MM		
<input type="checkbox"/> Corrections that do not affect the project		
<input type="checkbox"/> Change to the start date of the crediting p.		
<input checked="" type="checkbox"/> Permanent changes from the MP	1	1
<input type="checkbox"/> Permanent changes from the MM		
<input type="checkbox"/> Design changes to the project activity / PoA		
<input type="checkbox"/> Changes specific to AR projects		

The above listed post registration changes require prior approval of the Board.

Essen, 2015-06-01



Raul Gonzalez Mitre
TÜV NORD JI/CDM CP
Assessment Team Leader

Essen, 2015-06-01



Stefan Winter
TÜV NORD JI/CDM CP
Final Approval

7 REFERENCES

Table 7-1: Documents provided by the project participant

Reference	Document
/MR/	<ol style="list-style-type: none"> 1. Monitoring Report “Modelo de Callao Landfill Gas Capture and Flaring System”, version 01, 2014/11/14. 2. Monitoring Report “Modelo de Callao Landfill Gas Capture and Flaring System”, version 02, 2014/12/24 und 2015/04/20.
/PDD1/	Project Design Document named “Modelo de Callao Landfill Gas Capture and Flaring System” registered 2012-08-20.
/PDD2/	Revised PDD reflecting the intended / implemented changes, 2015-06-01
/TECH/	<ol style="list-style-type: none"> 1. Flare Operation and Maintenance Manual by Jonh Zink, # 9051818 – September 2006. 2. Technical specification LANDTEC Gas Analyzer 3. Technical Letter from NOVA – 910 Series 4. Blower Skid Assembly Diagram by John Zink, Rev.1 5. Enclosed Ztof Flare Diagram, by John Zink, Rev.0
/XLS/	ER calculation spreadsheet

Table 7-2: Background investigation and assessment documents

Reference	Document
/ACM/	ACM0001: Consolidated baseline and monitoring methodology for landfill gas project activities, version 11
/CPM/	TÜV NORD JI / CDM CP Manual (incl. CP procedures and forms)
/IPCC/	<ol style="list-style-type: none"> 1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book 2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book
/KP/	Kyoto Protocol (1997)

Reference	Document
/MA/	Decision 3/CMP. 1 (Marrakesh – Accords)
/PS/	CDM Project Standard (Version 9.0)
/Tool/	<ul style="list-style-type: none"> • Tool for the Demonstration and Assessment of Additionality (Version 5.2.1); • Tool to Determine Project Emissions from Flaring Gases Containing Methane (Version 2.0.0); • Tool to Calculate Baseline, Project and/or Leakage Emissions from Electricity Consumption (Version 1); • Tool to Calculate Project or Leakage CO2 Emissions from Fossil Fuel Combustion (Version 2); • Combined Tool to Identify the Baseline Scenario and Demonstrate Additionality (Version 4.0.0); • Tool to Determine Methane Emissions Avoided from Disposal of Waste at a Solid Waste Disposal Site (Version 5.1.0) • Tool to Calculate the Emission Factor for an Electricity System (Version 02.2.1).
/VAL/	Validation Report for CDM project “Modelo del Callao Landfill Gas Capture and Flaring System” version 4, dated 2012-08-20.
/VER/	Documents of previous verifications (Monitoring report, verification report, ER calculation sheet)
/VVS/	CDM Validation and Verification Standard (Version 09.0)

Table 7-1: Websites used

Reference	Link	Organisation
/ipcc/	www.ipcc-nggip.iges.or.jp	IPCC publications
/osinergmin/	http://www.osinergmin.gob.pe/newweb/pages/Publico/1.htm?6129	OSINERGMIN- Organismo Supervisor da la Inversión en Energía y Minería
/unfccc/	http://cdm.unfccc.int	UNFCCC

Table 7-2: List of interviewed persons

Reference	Mol ¹		Name	Organisation / Function
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Adamo Melendez	CDM Coordinator – Petramas
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Ivan Garcilazo	CDM Engineer – Petramas
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Santiago Ramirez	Plant Chief – Petramas
/IM01/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Cristian Santa Cruz	Technician – Petramas
/IM02/	V	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	Sergi Cuadrat	Consultant – Clima Loop

¹⁾ Means of Interview: (Telephone, E-Mail, Visit)

APPENDIX

- A1:** Assessment of Financial Parameters
- A2:** Assessment of Barrier analysis
- A3:** Competence statements of involved personnel

APPENDIX 1: ASSESSMENT OF FINANCIAL PARAMETERS

Table A-1: Assessment of Financial Parameters (VVS, §§ 120, 121 / in case financial parameters stem from FSR §122)

<input checked="" type="checkbox"/>	No financial parameters are used for additionality justification / No assessment of financial parameters is necessary for the proposed change					
<input type="checkbox"/>	Assessment of all financial parameters see below					
Parameter	Value applied	Unit	Source of Information (please indicate document and page)	Reference	DOE ASSESSMENT	
					Correctness of value applied	Comment
				//	<input type="checkbox"/>	
				//	<input type="checkbox"/>	

APPENDIX 2: ASSESSMENT OF BARRIER ANALYSIS

Table A-2: Assessment of Barrier Analysis (VVS, §§ 124-127)

<input checked="" type="checkbox"/>		No barrier parameters are used for additionality justification / No assessment of barrier analysis is necessary for the proposed change		
<input type="checkbox"/>		Assessment of barriers see below		
Kind of Barrier (invest, tech, other)	Description of Barrier	Evidence used	Assessment of validation team	
			Appropriateness of information source	Explanation of final result
			<input checked="" type="checkbox"/>	
			<input checked="" type="checkbox"/>	



APPENDIX 3: STATEMENTS OF COMPETENCE OF INVOLVED PERSONNEL

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Raul Gonzalez Mitre

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2015-06-27
VCS / ISO 14064-2	Senior Assessor	2015-06-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
13.1	Waste handling and disposal

082 - Rev. 4, Date: 2012-08-16

082_2011_F002_2012-08-16_mitg.docx 001-F002-mit / 2012-08-05

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Oliver Quireza Campos

SCHEME	STATUS	VALID UNTIL
CDM	Auditor	07-07-2017
VCS / ISO 14064-2	Auditor	07-07-2017

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA
1.2	Renewable Energies
13.1	Waste Handling and Disposal
13.2	Animal Waste Management

337 - Rev. 2, Date: 2014-07-08

337_2011-06-05_F001_2014-07-08_mq-1_Papen.docx 001-06-05-F001-mq1 / 2012-05-25

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Sergio Cruz

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2017-12-16
VCS / ISO 14064-2	Senior Assessor	2017-12-16

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.2	Renewable Energies	1.2.1 Hydro 1.2.2 Wind 1.2.3 Solar
13.1	Waste handling and disposal	13.1.1 Waste management

185 - Rev. 5, Date: 2014-12-17

185_2011-04-06-F001_2014-12-17_msc.docx 001-04-06-F001-msc / 2012-05-25

Statement of Competence

Appointment and authorization according to the procedures of the TÜV NORD JI/CDM Certification Program

Mr. Stefan Winter

SCHEME	STATUS	VALID UNTIL
CDM	Senior Assessor (Validation, Verification)	2017-07-27
VCS	Senior Assessor (Validation, Verification)	2017-07-27

Authorization status for technical areas within sectoral scopes:

CODE	TECHNICAL AREA	TR SUBCATEGORIES
1.1	Thermal energy generation	1.1.1 Hydro 1.1.2 Wind 1.1.3 Geothermal 1.1.4 Solar 1.1.5 Total
2.2	Heat distribution	
3.1	Energy demand	13.1.1 Waste management
13.1	Waste handling and disposal	13.1.2 Waste water management
13.2	Animal waste management	
15.2	Animal waste management	

163 - Rev. 3, Date: 2014-07-28

163_2011-F001_2014-07-28_mw.docx 001-F001-mw / 2011-08-02