South Asia

Choose certainty.
Add value.

CPA Validation Report

VALIDATION OF THE CDM CPA-PROJECT: Distribution of ONIL Stoves —Mexico, San Felipe Usila 1

TITLE OF THE POA TO WHICH CPA IS TO BE INCLUDED: DISTRIBUTION OF ONIL STOVES—MEXICO

REPORT NO. 600500428

03 December 2012

TÜV SÜD South Asia Pvt. Ltd.
Environmental Technology
Carbon Management Service
Solitaire, I.T.I. Road, Aundh
Pune- 411007
INDIA

Report No.	Date of first issue	Revision No.	Revision Date	Certificate No.
600500428	12-03-2012	03	03-12-2012	-

Subject: Validation of the CDM CPA under the PoA - Distribution of ONIL Stoves—Mexico

Accredited TÜV SÜD Unit:

TÜV SÜD South Asia Pvt. Ltd.
Environmental Technology
Carbon Management Service
Solitaire, I.T.I. Road, Aundh
Pune- 411007
INDIA

Project Participants:	CPA Implementer(s):
C-Quest Capital LLC (**Coordinating Managing Entity and client**) 1211 Connecticut Ave NW, Suite 800 Washington D.C. 20036 USA. **&** HELPS International A C Cruz Verde #199 Casa 8, Col. Lomas Quebradas, San Jerénimo Lédice City: México Distrito Federal 10000	HELPS International A C Cruz Verde #199 Casa 8, Col. Lomas Quebradas, San Jerénimo Lédice City: México Distrito Federal 10000 México

Project Site(s) and GPS coordinates:

Northernmost and Westernmost point: 32.500000 and -117.033333 (Tijuana); Southernmost point: 14.550000 and -92.166667 (desembocadura del Rio Suchiate); Eastermost point: 21.200000 and -86.716667 (Isla Mujeres)

Applied Methodology / Version:	Scope(s): / Technical Area(s):
AMS.II.G / Version 3	3 / 3.1

First CPA-DD Version (GSP):		Final CPA-DD version:	
Date of issuance:	10-12-2009	Date of issuance:	23-11-2012
Version No.:	01	Version No.:	15
Starting Date of GSP	30-12-2009		

Estimated Annual Average Emission Reduction: **40,090** tCO_2e

Assessment Team Leader:	Technical Reviewer:
Nikunj Agarwal	Thomas Kleiser, Bratin Roy

Assessment Team Members: Sandeep Kanda*, Supratik Dutta	

Summary of the CPA Validation and inclusion Opinion:

☒ The review of the CPA design documentation and the subsequent follow-up interviews have provided TÜV SÜD with sufficient evidence for the determination of the CPA's fulfilment of all stated criteria in the PoA. In our opinion, the CPA meets all relevant UNFCCC requirements for the CDM. Therefore, TÜV SÜD recommends the CPA for inclusion under the PoA to the CDM Executive Board (CDM-EB).

☐ The review of the CPA design documentation and the subsequent follow-up interviews have not provided TÜV SÜD with sufficient evidence for the determination of the CPA's fulfilment of all stated criteria in the PoA. Therefore, TÜV SÜD will not recommend the CPA for inclusion under the PoA and will inform the PoA managing entity, CPA implementer(s) and the CDM Executive Board of this decision.

* Left the Organization

ABBREVIATIONS

AMS	Approved Methodology Small scale
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
CME	Coordinating and Managing Entity
CPA	CDM Programme Activity
CPA-DD	CDM Programme Activity Design Document
CR / CL	Clarification Request
DNA	Designated National Authority
DOE	Designated Operational Entity
EF	Emission Factor
EIA / EA	Environmental Impact Assessment / Environmental Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	GreenHouse Gas(es)
IPCC	Intergovernmental Panel on Climate Change
IRL	Information Reference List
KP	Kyoto Protocol
LPG	Liquid Petroleum Gas
MP	Monitoring Plan
PoA	Programme of Activities
PoA-DD	Programme of activities design document
PP	Project Participant
TÜV SÜD	TÜV SÜD South Asia Pvt Ltd
UNFCCC	United Nations Framework Convention on Climate Change
VVM	Validation and Verification Manual

Table of Contents Page

1 INTRODUCTION

1.1 Objective

The objective of the validation process is to provide an independent assessment by a third party, a Designated Operational Entity (DOE), of the evaluation of the CDM Project Activity (CPA), based on Programme of Activities (PoA) design, and criteria outlined for CPA inclusion under the Clean Development Mechanism (CDM) of UNFCCC.

The assessment involves the evaluation of the CPA basis and design identified in the PoA Design Document (PoA-DD) and the template CPA design document (CPA-DD) using the defined criteria outlined by the registration under the Clean Development Mechanism (CDM). CPA validation is part of the PoA CDM project cycle and results in a conclusion by the executing DOE on whether or not a CPA is valid to be included under the PoA.

This validation and inclusion is for the first completed CDM Programme Activity Design document (CPA-DD) titled:

Distribution of ONIL Stoves —Mexico, San Felipe Usila 1 to be included under the PoA Titled:

"Distribution of ONIL Stoves—Mexico"

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 CPA, 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 outlined by the EB which are published under http://cdm.unfccc.int
- PoA-DD document
- Guidelines for completing the CDM programme of activities template and design document (CPA-DD) and the applied CDM methodology
- Baselines and monitoring methodologies (including GHG inventories)
- Management systems and auditing methods
- Environmental issues relevant to the applicable sectoral scope
- 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 process is not meant to provide any form of consulting for the PoA project participant(s) (PP) and CPA Implementer(s). However, stated requests for clarifications, corrective actions, and/or forward actions may provide input for improvement of the project design.

Once TÜV SÜD receives the CPA-DD, it is made publicly available on the UNFCCC website and on TÜV SÜD's website, which initiates a 30 day global stakeholder consultation process (GSP). In spe-

cial circumstances, such as when a project design changes, the GSP may need to be repeated. Information on the CPA-DDs is presented on page 1 of this report.

The purpose of a validation is to demonstrate compliance or non-compliance of the project with all stated and valid CDM requirements. Additionally, the purpose of validation is to enable the registration of CDM projects, which is only a part of the total CDM project cycle.

2 VALIDATION METHODOLOGY

The project assessment is based on the "Clean Development Mechanism Validation and Verification Manual" and is conducted using standard auditing techniques to assess the correctness of the information provided by the project participants. Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and relevant host country experience for evaluating the CPA project activity are appointed. 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 the preparation of the validation report. The prepared validation report and other supporting documents then undergo an internal quality control by the CB "Environment and Energy" before being submitted to the CDM-EB.

In order to ensure transparency, assumptions must be clear and stated explicitly and background material must also be referenced. TÜV SÜD has developed a methodology-specific protocol customized for the CPA. The protocol demonstrates, in a transparent manner, the project criteria (requirements), discussion on each criterion by the assessment team, and the results from validating the identified criteria.

The validation protocol serves the following purposes:

- To organize the details and provision of clarifications on the requirements which a CPA-DD is expected to meet
- To elucidate how a particular requirement has been validated as well as to document the results of the validation and any adjustments made thereby to the CPA-DD.

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

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

Validation Protocol Table 2: Resolution of Clarification and Corrective Action Requests			
Clarifications and corrective action	**Ref. to table 1**	**Summary of project owner response**	**Validation team conclusion**
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.	*Reference to the checklist question number in Table 1 where the issue is explained.*	*The responses given by the managing entity and/or other project participants during the communications with the validation team should be summarised in this section.*	*This section should summarise the discussion on and revision to PoA documentation together with the validation team's responses and final conclusions. The conclusions should be reflected in Table 1, under "Final".*

In case it is found that the project activity does not meet the CPA requirements, more detailed information on this decision is presented in Table 3.

Validation Protocol Table 3: Unresolved Corrective Action and Clarification Requests		
Clarifications and corrective action requests	**Id. of CAR/CR**	**Explanation of the Conclusion for Denial**
Referenced request if final conclusions from table 2 resulted in a denial.	*Identifier of the Request.*	*Detailed explanation of why the CPA is considered non-compliant with a criterion and a clear reference to the criterion*

The completed validation protocol is enclosed in Annex 1.

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 "Environment and Energy".

The composition of an assessment team has to be approved by the Certification Body (CB) to assure 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)
- Validator (V);
- Validator Trainee (T);
- Experts (E)

It is required that the sectoral scope(s) and the technical area(s) linked to the methodology and project have to be covered by the assessment team.

Assessment team:

Name	Qualification	Coverage of sectoral scope	Coverage of technical area	Coverage of financial	Host country experience
Nikunj Agarwal	ATL	☑	☑ (3.1)	---	☑
Sandeep Kanda*	V	-	---	---	
Supratik Dutta	V	-	---	---	
Arturo Lemus Mtz**	T				☑

**left the organisation

Technical Reviewer: Thomas Kleiser, Bratin Roy
Validation team on site: Sandeep Kanda†, Arturo Lemus Mtz, Supratik Dutta

2.2 Review of Documents

The completed CPA-DD version 01 for validation was submitted to the DOE in December 2009. The additional background documents related to the CPA design and baseline have been reviewed to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done as an initial step of the validation process. A complete list of all documents and evidence material reviewed is attached as Annex 2 to this report.

2.3 Follow-up Interviews

During the period 4th – 7th September 2010, TÜV SÜD performed interviews and physical site inspections with project stakeholders to confirm relevant information, and to resolve issues identified in the document review. The following table provides a list of all key persons interviewed in this process.

Persons Interviewed:

Name	Organisation
Kristel Dorion	EnergetixClimate (Project consultant)
Richard Grinnell	Helps International A C (Project Participant)
Rodolfo Díaz	Helps International AC. (Project Participant)
Daniel Farchy	C-Quest Capital LLC (Project Participant)

* Left the Organization, *However, Technical Area (TA) 3.1 of this project was covered during the on-site mission (04/09/2010 to 07/09/2010) by Sandeep Kanda as per the appointments valid at that time.*

† *Left the Organization. However, Technical Area (TA) 3.1 of this project was covered during the on-site mission (04/09/2010 to 07/09/2010) by Sandeep Kanda as per the appointments valid at that time.*

** Not appointed any more, left the organiation*

2.4 Cross-check

During the validation process the team has made reference to available information related to similar projects or technologies as described in the CPA-DD. Project documentation has also been reviewed against the approved methodology/ies 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, clarifications, and any other outstanding issues which need to be clarified for TÜV SÜD`s conclusion on the CPA design. The CARs and CRs raised by TÜV SÜD are resolved during communication between the managing entity 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 CPA-DD version 15 that was submitted in November 2012 serves as the basis for the final assessment presented herewith. Additional changes to the project during the validation process are not considered to be significant with respect to the main CDM objectives. The two CDM main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country

2.6 Internal Quality Control

Internal quality control is the final step of the validation process and is conducted by the CB “Environment and Energy” which checks the final documentation, which includes the final validation report and all necessary documents. The completion of the quality control indicates that each submitted report has been approved by the CB Committee. In projects where one of the CB Committee members is part of the assessment team, the approval is given by the rest of the committee.

After confirmation by the Managing Entity, the validation opinion and relevant documents are submitted for inclusion under the PoA to the CDM-EB via uploading it through the UNFCCC CDM webs 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 CPA Design Document

The CPA-DD is in compliant with relevant form and guidance as provided by UNFCCC.

TÜV SÜD considers that the guidelines for the completion of the CPA-DD generic and CPA-DD real

case in their most recent version (under VVM procedure) have been followed. Relevant information was provided by the participants in the applicable sections of CPA-DD generic and CPA-DD real case. Completeness was assessed through the protocol included in Annex 1.

3.2 CPA Description

The following description of the CDM programme activity as per CPA-DD was verified:

The project is developed under the Small-Scale Programme of Activities (PoA) titled " Distribution of ONIL Stoves—Mexico ".

The CPA implementer is Helps International A C. [IRL # 5, 9]

The PoA involves replacement of three stone traditional open fire stove with ICS certified as per ONIL standard in the Households of Mexico. HELPS International AC (hereafter "HELPS International") and C-Quest Capital LLC (hereafter "CQC") will be the joint coordinating and managing entity of the PoA. HELPS International is the implementer for this 1st CPA to distribute the stoves in the host country. The CDM programme activities (CPAs) under the PoA will be implemented in Mexico. There are no mandatory policies or regulations for the adoption of ICS use in Mexico [IRL# 14,17]

The CPA is expected to result in an average annual emission reduction of **40,090** tCO_2e.

The CPA receives no public funding [IRL # 30]. The starting date of the Mexico, San Felipe Usila 1 is 30th December 2010 based on the date of first cook stove delivery to households after PoA-DD was published for global stakeholder process (GSP) [IRL# 43]. The starting date of the project activity has been considered as per page 28 of the CDM Glossary of terms, version 6 [IRL #35] .The length of the CPA is taken as 7 years.

The audit team has assessed from UNFCCC, Gold Standard (GS), Voluntary Carbon Standard (VCS) website, other carbon scheme project references and on-site interviews that there is no other similar PoA or CDM project occurring in the CPA area.

The information presented in the CPA documents is consistent with the actual planning and implementation of the activity confirmed in the following ways:

- A review and cross check of data and information (see annex 2).
- An on-site visit with relevant stakeholder and personnel with knowledge of the project in attendance. In case of doubt, further cross checks through additional interviews and telephonic discussions with the PPs were conducted.
- A review of information related to similar projects or technologies which have been used if available to validate the accuracy and completeness of the project description.

In conclusion, TÜV SÜD confirms that the CPA project description is sufficiently accurate and complete in order to comply with the requirements of the PoA.

3.2.1 CPA boundary

The CPA boundary was assessed considering the information gathered from the physical site inspection, interviews, and secondary evidence received on the design of the PoA. The information includes the location of the CPA areas; GPS coordinates of the specific household, stove design and feedback from the stakeholders regarding stove usage.

The project boundary is the physical, geographical location of each stove installed. The sources and gases within the boundary have been considered in a clear manner. The CO_2 emissions from the combustion of firewood for cooking have been included.

The major source of emissions in the baseline and project activity is due to CO_2 due to combustion of firewood for cooking by the traditional open fire stove. TÜV SÜD confirms that the identified boundary, the selected sources, and gases as documented in the CPA-DD are justified for the project activity and are fully in line with the requirements set by the applied methodology.

3.3 Eligibility Criteria

All the eligibility criteria required for the inclusion of the CPA under the PoA have been addressed in the CPA-DD. The stated confirmation against each eligibility criteria has been checked and found acceptable.

- CPA satisfies that geographical boundary is within Mexico. PP has provided a self deceleration [IRL# 61] to confirm that all ICS installed under CPA are within the boundary of Mexico. Further same has been cross checked with the stove registration card, Purchase contract between household and helps, Mexico, San Felipe Usila 1 database, Implementation plan of the Mexico, San Felipe Usila 1 and Minutes of Board meeting of the Help international A C. [IRL # 8, 35, 45, 50, 53]. CPA satisfies that no double counting taken place. CPA is uniquely identified and defined in an unambiguous manner by a database of uniquely identified households where ICSs are installed. Each household is assigned a unique ID in the database, which is linked to information for each entry on the following:
  - Address of ICS user or household
  - Phone number of ICS user or household
  - GPS location of household
  - Stove model
  - Date of distribution/installation
  - ICS serial number
  - Retailer/distributor information
  - Identification of cooking method prior to installation of stove

- Distribution and installation in the CPA have been carried out by HELPS International technicians under the PoA programme. The CPA follows stove standard as listed in Appendix 1 of the PoA-DD. [IRL # 9, 12, 36]. Helps International has provided a self declaration which confirmed this criterion [IRL# 59]. Apart from this, DOE has cross checked this criterion with Operational and management plan of the Helps international A C for cook stove project [IRL# 9] and stove warranty card [IRL# 45]
- CPA start date is 30.12.2009 which has been verified by DOE with first cook stove delivery receipt [IRL# 43] and date is not before the PoA start date [IRL# 49].
- As per para 2 (c) of the “Guidlines of the demonstration of additionality of small-scale project activities”, documentation of barriers is not required for the positive list of technologies and

project types that are defined as automatically additional if below criteria's are fulfilled by each CPA

a) The CPA is composed of isolated ICS as each ICS distributed is an isolated unit with a single serial number and it has been checked with database [IRL #53].

b) The sum of all ICSs in the CPA (maximum number of ICSs in the CPA) will generate equal or less than 180 GWh_{th} in energy savings per year, so to remain below the small scale threshold limit; this will demonstrated by the following equation which will be presented to the DOE at time of CPA inclusion: Maximum ICS per CPA = 180 GWHth/(NCVbiomass*By,savings). Project proponent has submitted emission reduction spreadsheet in CPA [IRL# 41] where it is demonstrating that stove number 13,859 is not crossing the 180 GWhth in energy savings per year.

c) ICS units installed under the CPA do not exceed 5% of the SSC threshold- Project proponent has submitted CER spread sheet [IRL# 41] where it is demonstrating that the ICS model distributed under this CPA does not result in more than 5% small-scale CDM thresholds. The energy savings per stove are 0.013 GWh^{th} or 7.2 x 10^{-3} % of the small-scale CDM thresholds of 180 GWh^{th}.

- CPA have targeted those households where traditional open fire stoves and not already involved or covered by any other CPA or CDM project involving the distribution and/or installation of improved cook stoves were used for cooking This has been checked with the database, stove delivery receipt and warranty card [IRL# 43, 45, 53]
- The CPA follows the multistage sampling method with two stages for all three monitored parameters $n_{y,\,j}$, SS_y and $\eta new,\, i,$ which is accordance to Annex-4 of EB 69 and method mentioned in PoA-DD. This CPA will be part of a Primary Sampling Unit which represents the first stage sampling unit (refer to PoA-DD Section E.7.2 Subsection iv "Sampling Method"). Primary Sampling Units are groups of CPAs that have the same CPA Implementer and same ICS model. Therefore, this CPA will be grouped with other CPAs where HELPS International is the CPA Implementer and where ICSs are used. On a second stage, the stove installations to be sampled in this Primary Sampling Unit will be selected using a simple random sampling method.IRL# 2]
- CPA has submitted an emission reduction spreadsheet, it has been clearly demonstrated in the sheet that total cook stove number 13, 859 with energy savings 0.013 GWh^{th} or 7.2 x 10^{-3}% for per stove [IRL# 48] will not generate more than 180 GWh^{th} in energy savings per annum and is remaining within that threshold throughout the crediting period of the CPA. This has been checked by DOE with emission reduction spread sheet [IRL# 2,3, 48].
- The CPA satisfies the debundling rules for PoA's [IRL# 2, 48]
- Project proponent has provided a letter from 3rd party auditors Sibley and Company (Certified Public Accountants & Business Consultants) which is confirming that no ODA fund is involved in the program. Also, a self declaration has been submitted by Helps international on no official development assistance (ODA) fund has diverted in the CPA. [IRL# 33, 59]
- Helps International has submitted letters from third party auditor which confirm that no ODA funds were diverted or used in this CPA [IRL# 33]. The first two applicability criteria have been verified by Aprovecho test results of the ONIL stove done by Aprovecho Research center [IRL# 35] and third criteria has been checked with FAO, Evaluation of Forest Resources, National Report, 2010, Mexico (Evaluacion de los Recursos Forestales Mundiales, Informe Nacional, 2010, Mexico) [IRL# 33].
- Each SSC-CPA shall involve the sale and distribution only of stoves that cannot be commercially supplied at affordable prices to the end users in the target market. Each CPA developer should provide some analysis showing that carbon finance is essential to reduce

the installed price of the stove to a level that makes it affordable to as many households as possible. This criterion has been checked by DOE with Registration card [IRL #48] and PoA database [IRL #59] maintained by CME

- CPA has done the stove and warranty agreement with the household user which confirms that CERs signed by the use of the stove will be transferred to HELPS International and/or CQuest Capital as the coordinating and managing entity [IRL# 35].
- CPA has provided a self-declaration to confirm that no technology transfer from Annex 1 countries [IRL #38]
- CPA has shown that the implementation of the improved cook stove reduces anthropogenic emissions of GHG [IRL# 12,13,14]
- Helps International has submitted a self deceleration letter [IRL# 59] from CQC (CME) which confirmed that CME has approved the CPA. Also, same criteria have been cross checked with CPA implementation plan for the ONIL-certified stove [IRL# 9]
- Helps International has submitted proof of delivery and receipt of stoves which has already distributed [IRL# 43]

In conclusion, TÜV SÜD confirms that the CPA complies with the eligibility criteria requirements of the PoA.

3.4 Additionality

Project proponent has demonstrated the additionality at PoA level and it has been demonstrated as per “Guildlines of the demonstration of additionality of small-scale project activities (Ver. 09)”.

According to the para 2 (c) of “Guidelines of the demonstration of additionality of small-scale project activities (Ver. 09)”, additionality explanation is not required for the positive list of technologies and project activity types that are defined as automatically additional for project sizes up to and including the small-scale CDM thresholds (e.g. installed capacity up to 15 MW), and it should fulfill the criteria “project activities solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds.”.

The applied methodology AMS.II.G (version. 03) falls under type II category project in CDM. According to the response given by small working group on “SSC_233”, the threshold limit of the type II project is 180 GWHth per year therefore larger than 5% of the small-scale CDM threshold condition of the above guideline “Guidelines of the demonstration of additionality of small-scale project activities (Ver. 09)” will be applicable on 180 GWhth.

It has been verified from physical inspection of the ICS using in the household and database of the PoA database [IRL# 59] that the PoA is composed entirely of isolated units and the users of the technology are households. Also, the size of each unit would be under 750 kW installed capacity or under 3000 MWh of energy savings per year according to the requirement of footnote 1 of the “Guidelines of the demonstration of additionality of small-scale project activities”. It was verified by DOE with the limiting factor calculation sheet that energy saving of each ICS stove is less than 3000 MWh. Further, the same has been checked with emission reduction spreadsheet in CPA in the CPA inclusion criteria (f) and (i) in section B.2.of the CPA-DD.

Based on the analysis above, TÜV SÜD confirms the additionality of the CPA1.

3.5 Emission Reductions

3.5.1 Parameters determined ex-ante

The parameters that are determined ex-ante are:

η_{old}- Efficiency of the traditional cooking stove. The default value 0.10 is taken from approved methodology [IRL# 2]

B_{old}- Quantity of Biomass used in the absence of the project activity (per appliance). The value 5.33 tonnes/year from the baseline survey carried out by CME [IRL# 49]

L_y- Net to gross adjustment factor to account for leakage. The default value 0.95 is taken from approved methodology [IRL# 2]

$f_{NRB,y-}$ The fraction of woody biomass saved by the project activity in year *y* as non-renewable biomass ($f_{NRB,\,y}$) has been established as .87. This has been calculated according to the formula of para 11 (i.e., equation 6) of the methodology. Project proponent has submitted $f_{NRB,\,y}$ calculation spread sheet. The calculation resulting in a figure of 0.87 for f_{NRB} for whole Mexico is deemed to be credible and appropriate according to the submitted documents.

The use of non-renewable biomass is further substantiated by at least two supporting indicators (as per paragraph 10 of the applied methodology). Two indicators have been verified by DOE from the following sources:

1. Survey results, national or local statistics, studies, maps or other sources of information such as remote sensing data that show that carbon stocks are depleting in the project area;

This indicator has been checked by FAO, Evaluation of Forest Resources, National Report, 2010, Mexico (Evaluacion de los Recursos Forestales Mundiales, Informe Nacional, 2010, Mexico), Page 69 www.fao.org/forestry/fra/67090/en/mex/. Further, the same can be checked by FAO, Evaluation of Forest Resources, National Report, 2010, Mexico (Evaluacion de los Recursos Forestales Mundiales, Informe Nacional, 2010), Mexico, Page 55; www.fao.org/forestry/fra/67090/en/mex/

Apart from above, A Non Renewable biomass assessment (NRB) has been demonstrated by the project proponent under baseline survey with following references:

(a) http://rainforests.mongabay.com/deforestation/mexico.html
(b) Reforestacion. Evaluacion Externa Ejercicio Fiscal 2007. Accessed from http://www.era-mx.org/biblio/Evaluacion_Colpos_Reforestacion_2007.pdf
(c) The Engineering Toolbox. Wood densities. Accessed from http://www.engineeringtoolbox.com/wood-density-d_40.html

This study has also confirmed that deforestation is continuing.

2. Increasing trends in fuel wood prices indicating a scarcity of fuel-wood;

Increasing trends in fuel wood prices indicating a scarcity of fuel-wood has been verified FAO, Evaluation of Forest Resources, National Report, 2010, Mexico.

Furthermore, the DOE by interviewing end-users of fuel wood during the onsite field visits can confirm a clear trend showing an increase in time spent and distance travelled for gathering fuel-wood.

The DOE concludes that biomass is harvested from net non-renewable sources which are supported by at least 2 indicators as per paragraph 10 of the applied methodology.

Furthermore, the DOE by assessing National Strategy for Climate Change 2007 and 2009, The Ministry of Environment and Natural Resources (SEMARNAT) concludes, that the trends identified as per paragraph 10 of the applied methodology are not occurring due to the enforcement of local/national regulations. The documents clearly demonstrate that deforestation is not caused by

government policies/regulations, but on the contrary, efforts are undertaken by the Mexico government to protect forest areas and to promote energy efficiency technologies. Thus, it is demonstrated that the trends identified by the PPs are not occurring due to the enforcement of local/national regulations as per paragraph 12 of the applied methodology [IRL# 29, 49].

$NCV_{biomass-}$ Net calorific value of non-renewable biomass. The default value 0.015 TJ/tonne is taken from approved methodology [IRL# 2]

$EF_{projected\_fossilfuel}$- Emission factor for the substitution of non-renewable biomass by similar consumers. The default value 81.6 t CO_2/TJ is taken from approved methodology [IRL# 2]

In summary, the parameters determined ex-ante are conservative and appropriate and they have been presented correctly according to the requirements of the applied methodology.

3.5.2 Emission reduction calculations

The CPA-DD confirms to meet the procedures provided in the methodology and PoA-DD viz.

The quantity of woody biomass that is saved in tones ($B_{y,\ savings}$) would be determined using para 6, option 2 (i.e., equation 3) of the referred methodology.

The quantity of woody biomass used in the absence of the project activity in tones (B_{old}) would be determined using para 7 (a), i.e., calculated as the product of the number of systems in operation (N) multiplied by the estimate of average consumption of woody biomass per appliance (tonnes/year) derived from the baseline survey of local usage.For the efficiency of the system being replaced (n_{old}), a default value of 0.10 as per AMS.II.G / Version 03 is used as the replaced system is a three stone fire, or a conventional system with no improved combustion air supply or flue gas ventilation system, i.e. without a gate or a chimney.

The efficiency of the system being deployed (n_{new}) as part of the project activity (fraction) will be determined using the Water Boiling Test (WBT) protocol (version.03)..

The fraction of woody biomass saved by the project activity in year y as non-renewable biomass ($f_{NRB,\ y}$) has been established as .87. The calculation resulting in a figure of 0.87 for f_{NRB} for whole Mexico is deemed to be credible and appropriate according to the submitted documents.

The IPCC default for wood fuel, 0.015 TJ/tonne, has been taken from the net calorific value of the non-renewable woody biomass ($NCV_{biomass}$), as per the methodology.

The emission factor for the substitution of non-renewable woody biomass ($EF_{projected\ fossil\ fuel}$) by similar consumers has been taken as 81.6 tCO_2/TJ, as per the methodology.

Further, as prescribed in para 23 (c), of the methodology, to account for leakage, B_{old} would be multiplied with a net to gross adjustment factor (Ly) of 0.95, in which case surveys are not required.

Fraction of monitoring period the stove is in operation (days in operation/total days in monitoring period) ($\mathbf{t_{yj}}$) – This value has been assumed 1 and would be checked through ICS registration data in monitoring database.

The formulae are correctly presented for the determination of emission reductions.

TÜV SÜD has assessed the calculations of emission reductions. Corresponding calculations have been carried out based on calculation spreadsheets. The parameters and equations presented in the CPA-DD, as well as other applicable documents, have been compared with the information and requirements presented in the PoA-DD, CPA-DD template and the methodology.

The assumptions and data used to determine the emission reductions are listed in the PoA-DD and all the sources have been checked. In summary, the calculations of emission reductions are considered to be correct and according to requirements.

3.6 Monitoring Plan

The monitoring plan presented in the CPA-DD complies with the requirements of the PoA. The assessment team has verified all parameters in the monitoring plan against the requirements of the methodology and no deviations have been found.

The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the PoA managing entity and the CPA implementers. Specifically, these points include the monitoring methodology, data management, quality assurance and quality control procedures to be implemented in the context of the activity.

The parameters that are to be monitored ex-post are:

n_{new}- Efficiency of the ICS -- Efficiency of the stove will be determined by stove test which will be done in each monitoring period. The test will be coordinated by the CME and undertaken following WBT protocol 3.0 (or more recent version at the discretion of the CME) by the project team or an experienced third party.

$n_{y,j}$ - Number of stoves still in operation during the monitoring period- This value will be determined by the monitoring field survey. The percentage of stoves found to be still in operation based on the sampling plan in each monitoring period will be applied to the total number of stoves distributed/installed in each CPA (according to the ICS registration records in the monitoring database and the applicable sample frame). The proportion of sampled ICS found to be in operation during each monitoring period will be applied to the total number of stoves for each CPA when calculating emission reductions. If, based on the sample size selected in any monitoring period, the confidence/precision requirements set out in EB69 Annex 4 are not satisfied, then CPA Implementers will follow the procedures outlined in the Monitoring Plan (E.7.2 of the PoA-DD) to ensure the required level of confidence/precision is met, or appropriate conservative values as defined by AMS II.G Version 3 are used. The unique identification number of each stove is logged into the monitoring database. Data from the monitoring survey will be collected each monitoring period by trained staff and applied to the emission reduction calculations. Internal crosschecks by the CME or CPA implementer will be undertaken as QC.

SSy- The fraction of ongoing baseline stove use within the population of in-use ICS during a monitoring period. This value will be determined by the monitoring field survey. SSy will be calculated in each monitoring period as follows: the number of sampled households with operational ICS that also continue to use a baseline stove divided by the total number of operational ICS in the sample. This survey will also be conducted by CME or CPA implementer.

t_{yj}- Fraction of monitoring period the stove is in operation (days in operation/total days in monitoring period) – ONIL Stoves are not operating in CPA monitoring year will be measured ex-post through monitoring database records. The fraction will be calculated by dividing the number of days from the registration date of the stove, or the start date of the monitoring period (whichever is later), until the end of the monitoring period by the total number of days in the monitoring period. The unique reference number of each stove shall be logged in the monitoring database. The date of registration shall be utilized to determine the portion of the monitoring period that the stove has been in operation. Any interruption in the stoves' operation (e.g. where stoves are replaced or drop out) will register as missed operating time in the monitoring database for emissions calculation purposes.

$B_{old\_Adjusted}$- Fuel wood consumption per appliance of baseline stoves continuing to be used in year y of the project activity, then monitoring shall ensure that fuel-wood consumption of those stoves is excluded from B_{old}. Value is 5.33 Tonnes/year has been taken from the baseline survey. Project proponent has chosen the option (b) of para 20 to ensure that the wood used for any baselines stoves that continue to be in use was discounted from Bold.

In summary, the parameters determined ex-post have been presented correctly according to requirements are considered in accordance with the applied methodology.

Ex post sampling method - The sampling procedure has been defined in CPA-DD is in line with Annex-4 of EB 69 "standard for sampling and surveys for CDM project activities and programme of activities" (Version.03), Annex-5 of EB 69 "Guidelines for sampling and surveys for CDM project activities and programme of activities" and applied methodology. Sampling plan will be applied to the following parameters

(a) Proportion of ICS still in operation ($n_{y,j}$)

(b) Percentage of continued baseline stove uses among ICS households in the database (Ssy)

(c) Thermal Efficiency of operational ICS ($\eta_{new,i}$)

Audit team has reviewed sampling plan of the programme given in section E.7.2 of the PoA-DD as per below:

The CME ensures that statistically sound sampling methods will be used to be in line with Annex 4 of EB69 "Standard for sampling and surveys for CDM project activities and programme of activities", version 03.0 and with Annex 5 of EB69 "Guidelines for sampling and surveys for CDM project activities and programme of activities", version 02.0 and the applied methodology.

The PoA-DD indicates a sampling plan as per the recommendation outlined in section III of EB69, Annex 05 and contains amongst others information related to sampling design, data to be collected and implementation plan and same will be applied to the following parameters

(a) Proportion of ICS still in operation ($n_{y,j}$)

(b) Percentage of continued baseline stove uses among ICS households in the database (SSy)

(c) Thermal Efficiency of operational ICS ($\eta_{new,i}$)

(i) Objective and Reliability Requirements:

The objective is to obtain an unbiased and reliable estimate of the proportion (in the case of the parameters $n_{y,j}$ (numbers of ICS still in operation during the monitoring period as determined by the monitoring survey) and SSy (percentage of ongoing baseline stove (second stove) use)) and of the mean value (in the case of the parameter η new,i (continuing thermal efficiency of ICS)) for each monitoring period over the course of the crediting period. A 95/10 confidence/precision (as per paragraph 20 of EB69, Annex 4) for annual and 95/5 for biennial sampling* (as required by paragraph 22 of the applied methodology AMS-II.G) across CPAs has to be met. In case a single CPA is sampled (i.e. if a primary sampling unit consists of only one CPA), a 90/10 confidence/precision for annual and 95/5 confidence/precision for biennial sampling shall be complied with (as required by paragraph 22 of the applied methodology AMS-II.G).

(ii) Target Populations:

The target population for the parameters ny,j and SSy are all households in the PoA database which are using fuel wood in ICS distributed under this PoA for cooking. The target population for the parameter ηnew,i is the set of stoves (same model and manufacturer) installed in vintage i across CPAs that are operating and are in the database. The DOE checked the evaluation criterion in EB69, Annex 05, paragraph 38 (b) and confirms that the description of the target population is clear enough to define the population for the sampling purposes.

*EB69, Annex 4 does not indicate the confidence/precision for biennial sampling across CPAs.

(iii) Sampling Frame:

The PoA is open to different CPA implementers and different models of ICS and will have ICS of different vintages implemented. As per EB69, Annex 4, section V, paragraph 20, footnote 18, sampling across a group of CPAs is possible, provided the homogeneity of population in included CPAs can be demonstrated, or differences among the included CPAs are taken into account in the sample size calculation.

Taking this into account, CPAs having the same CPA implementer and simultaneously same ICS model shall be grouped together to create a primary sampling unit which is homogenous.

Two sampling frames have been defined. For the parameters ny,j and SS y CPAs shall be grouped together in the case of the same CPA implementer and same ICS model, hence creating a Primary Sampling Unit. In the event that CPAs have different CPA Implementers using the same ICS model, two different primary sampling units are created. Same is true if CPAs have the same CPA Implementer however a different ICS model being implemented. For the parameter η new,i a primary sampling unit is defined as the group of ICSs implemented in different CPAs under the PoA of the same model and same vintage and regardless of CPA implementer.

(iv) Sampling Method:

The sampling method for all 3 sampled parameters (ny,j , SSy and $\eta_{new,i}$) is multi-stage sampling (as per EB69, Annex 5, Section II). The sampling method is considered to be appropriate by the DOE given the large number of ICSs and the geographical area of the country where ICSs are expected to be disseminated. Using this approach, the sampling effort can be concentrated on a set of localities, thereby reducing travel needs and associated costs. Besides, ICS models and CPA implementer may vary for different CPAs, hence it is appropriate to use a two step approach so to take these variations into consideration.

Multi-stage sampling combines the cluster and simple random sampling approaches in a multi-stage approach and can be thought of as sampling from a number of groups, and then going on to sample units within each group (paragraph 73 of EB69, Annex 5). In a first stage, all CPAs that have been included in the monitoring period are grouped into Primary Sampling Units - following the 2 aforementioned sampling frames. Each primary sampling unit will be comprised of a number of municipalities which are considered as the secondary sampling units and the number of households/ICS within each sampled municipality which will be sampled. The number of municipalities to be sampled is selected using a simple random sampling approach from a list of all municipalities present in each Primary Sampling Unit. Once the municipalities are defined, ICS/households present in each municipality will be randomly selected.

The DOE confirms that primary sampling units using the same stove model and implemented by the same CPA Implementer (in the case of ICS thermal efficiency same stove model and same vintage) are homogeneous and each household has an equal probability of being chosen. Random number generators will be applied in order to ensure a random selection. Each ICS in the target population can be uniquely identified by its unique serial number. Each ICS can thus be allocated a sample selection number in each monitoring period. Applying the random number generators, the ICS can then be randomly chosen from the defined population up to the required sample size as calculated by the CME. The DOE confirms due to its local and sectoral expertise that due to the highly homogenous characteristics of the end users in the geographical area of the POA, it is not envisaged that geographical or demographic representativeness is required beyond what is described in the sampling frame.

The criteria in EB69, Annex 05, paragraph 38 (c) and (e) have been evaluated and the DOE confirms that the sampling method (multi-stage sampling) is clearly described and is in line with the description of the population. The sampling plan transparently describes how the samples are selected and that the use of random number generators ensure a random selection.

(v) Sampling Method:

Two of the three parameters that will be sampled, namely n y,j and SS y are binary in nature and are proportions/percentages and one of the parameters η new,i is a mean value, thus two different formulae for calculating the required sample size are applied as per EB69, Annex 4 and 5.

For the parameters n y,j and SSy the following equation* is used:

$$c \geq \frac{\frac{SD_B^2}{\overline{p}^2} \times \frac{M}{M-1} + \frac{1}{\overline{u}} \times \frac{SD_W^2}{\overline{p}^2} \times \frac{\left(\overline{N}-\overline{u}\right)}{\left(\overline{N}-1\right)}}{\frac{precision^2}{z^2} + \frac{1}{M-1} \times \frac{SD_B^2}{\overline{p}^2}}$$

Where:

c = number of municipalities that should be sampled

M = total number of municipalities in the population

$\overline{u}$ = number of households/ICS to be sampled within each municipality

$\overline{N}$ = average number of households with ICS per municipality

SD_B^2 = Unit variance (variance between municipalities)

SD_W^2 = average of group variances (average within municipality variation)

p = overall proportion

z = Constant (z-score) referring to the level of confidence (e.g. 1.96 for 95% confidence).

Precision = Required precision (e.g. 10% = 0.1)

For the parameter η new,i the following equation† is applied:

$$c \geq \frac{\frac{SD_B^2}{\overline{p}^2} \times \frac{M}{M-1} + \frac{1}{\overline{u}} \times \frac{SD_W^2}{\overline{p}^2} \times \frac{\left(\overline{N}-\overline{u}\right)}{\left(\overline{N}-1\right)}}{\frac{precision^2}{z^2} + \frac{1}{M-1} \times \frac{SD_B^2}{\overline{p}^2}}$$

Where:

c = number of municipalities that should be sampled

M = total number of municipalities in the population

$\overline{u}$ = number of households/ICS to be sampled within each municipality

$\overline{N}$ = average number of households with ICS per municipality

* Equation 16, Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities (EB69, Annex 5)

† Equation 33, Guidelines for Sampling and Surveys for CDM Project Activities and Programme of Activities (EB69, Annex 5)

SD_B^2 = Unit variance (variance between municipalities)

SD_W^2 = average of group variances (average within municipality variation)

Clustermean = average efficiency of ICS across municipalities

Overallmean = average efficiency of all ICS sampled

z = Constant (z-score) referring to the level of confidence (e.g. 1.96 for 95% confidence).

Precision = Required precision (e.g. 10% = 0.1)

The CPA Implementers or CME will collect pilot data to determine sample sizes for the first monitoring period. In subsequent monitoring periods, the sample size equations will be updated with the values obtained during monitoring from previous monitoring periods. Since pilot data specific for this given PoA are not available yet, the CME has made certain assumptions to exemplify the sample size calculations for the 3 parameters.

Assumptions for the proportion value, unit variance and average of within municipality variance (for the parameter $n_{y,\,j}$), unit variance and average of within municipality variance (for the parameter SSy) are taken from pilot tests in other ICS PoAs the CME is involved. The DOE by assessing the pilot study parameters and calculations in the submitted excel file [IRL 53] confirms that the assumptions for the aforementioned input values for sample size calculation are appropriate and plausible.

The unit standard deviation and the average of within a municipality standard deviation (for the parameter ICS thermal efficiency) were estimated using an excel simulation of a pilot where 6 Municipalities are selected and 5 ICS is tested in each village for thermal efficiency. Random generators following a normal distribution were used to simulate the pilot. The simulation used a 4.35% standard deviation, which was estimated by multiplying the average coefficient of variation of thermal efficiencies of 5 wood stove models by the 24% efficiency of the ICS in the first CPA. The thermal efficiency values and standard deviations to estimate the coefficients of variation of the five stove models can be verified by simulation done in the excel file [IRL 53] confirms that the assumptions for unit standard deviation and the average of within Municipality standard deviation (for the parameter ICS thermal efficiency) for the sample size calculation are deemed to be plausible and appropriate. The proportion value for the parameter SSy used for the sample size calculation is the same value as found in the baseline study and has been verified by the DOE through the baseline wood fuel consumption study [IRL 20]. However, in order to be in line with EB69, Annex 4, paragraph 11(a), the larger of the two proportions (p and (1-p)) is used in the sample size calculation, thus the value of 0.20 is applied. The mean value for efficiency of the ICS is based on manufacturer's specifications and has been verified by the DOE through the technical details of the stove [IRL 12]. The number of households to be sampled within each municipality has been assumed by the CME to be 30 and the average number of households with ICS per Municipality is assumed to be 34. This is the amount the CME expects to disseminate in each of the 6 Municipalities in Mexico, hence has been assumed for the remaining Municipalities as well. These assumptions have been confirmed by the CME in interviews and are deemed to be appropriate by the DOE for the purpose of exemplifying the sample size calculation.

Assuming an annual inspection and a 95/10 confidence/precision (since sampling is done across CPAs), results in a sampling size of 60, 1650 and 30 for the parameters $n_{y,\,j}$, SSy and $\eta_{new,\,i}$ respectively. The sample size calculations have been verified by the DOE through the sample size calculation excel sheet [IRL 53] and were found to be correct.

The CME shall decide the number of ICS to sample within each municipality and calculate the Municipality sample sizes accordingly to meet the required level of confidence/precision. In

case the resulting sample size to achieve the desired confidence/precision level is smaller than 30 ICS for any of the three parameters, then the sample size will be increased to 30 which is in accordance with EB69 Annex 4, Section IV, paragraph 12. The increase will be made in the number of ICS sampled per Municipality.

The CME may choose to use the same municipalities to monitor more than one parameter and the same will be selected randomly. The DOE accepts this approach since the random selection of Municipalities for every parameter is ensured, as Municipalities are randomly selected.

The criteria in EB69, Annex 05, paragraph 38 (d) have been evaluated and the DOE confirms that the proposed sample sizes (calculated for exemplification) of the three parameters to be sampled are adequate to achieve the minimum confidence/precision requirements. As aforementioned, assumptions like variances, standard deviations, proportions and mean value have been verified by the DOE and are deemed to be plausible and are based on pilot studies from other PoAs in which the CME is involved, literature values and simulation. The sample sizes for the three parameters will be re-calculated for the 1st monitoring period by the CME as soon as PoA specific pilot data are available. In subsequent monitoring periods, the sample sizes will be re-calculated updated with the values obtained during monitoring from previous monitoring periods.

(vi) Feild Measurement:

Parameter	**Timing (indicative)**	**Frequency (required by AMS II.G –Version 3)**	**Methods to be applied**	**Comments on seasonal fluctuation**
$n_{y,j}$	Monitoring will likely occur every 12 months	No less frequently than every two years	Visits to the premises, visual inspection and interview with ICS end-user	Unlikely to be due to any seasonal fluctuation.
SSy	Monitoring will likely occur every 12 months	No less frequently than every two years	Visits to the premises, visual inspection and interview with ICS end-user.	Unlikely to be due to any seasonal fluctuation.
$\eta_{new,i}$	Monitoring will likely occur every 12 months, and will include ICS from all vintages for which emissions reductions are to be claimed in that monitoring period.	No less frequently than every two years	Water Boiling Test (WBT) Protocol Version 3.0 (or more recent at the discretion of the CME).	Not due to any seasonal fluctuation.

(vii) Quality Assurance and Quality Control:

The CME will apply measures to ensure that the required confidence/precision for each sampled parameter is met, allowing for non-response and the possible removal of outliers from the sample, as part of a quality control and quality assurance system. Measures may include oversampling, buffer group, draw of additional samples or use of a lower confidence bound (in the case of the parameters $n_{y,j}$. or $\eta_{new,i}$) or upper confidence bound (in the case of the parameter SS_y). More detailed explanations to these measures are provided in E.7.2. of the PoA-DD.

The CME will ensure that field personnel have reviewed, understood and agreed to follow the monitoring procedures, including provisions for maximizing response rates, documenting out-of-population cases, refusals and other sources of non-response. A quality control and assurance strategy will be documented. Quality control and assurance strategies include addressing non-sampling errors, such as non-response or bias from the interviewer. The CME or a competent third party designated by the CME with the proper skills will train the monitoring personnel on how to properly survey households to prevent bias from the interviewer. In the case a household refuses to participate, another household will be chosen at random. To reduce interviewer bias, good questionnaire design and well-tested questionnaires will be used.

The calculation of the sample size will be carried out using estimates for parameter proportions, mean values, variances and standard deviations, as the actual characteristics of the population/sampling frame are unknown. In order to ensure the quality of the sampling results, the CME can draw on the provisions for reliability calculations including estimating the bounds of the confidence interval, the standard error of the mean value or proportion, and the t-value as derived from the t-distribution*. In the event that the sampling results do not fulfil the required level of confidence and precision, the CME can undertake additional samples. If the reliability is still not sufficient after raw data and summary statistics are scrutinized and after additional samples have been collected†, the sampling may be repeated with an increased sample size. Alternatively, the CME may choose to apply the lower bound (or higher bound according to the more conservative approach, as for example for the parameter SS_y) of the sampling results as is allowed for by the applied methodology, paragraph 22.

As the continued use of ICS and the incidence of baseline stove usage among ICS users are binary parameters, there can be no outliers in the sampled data and no treatment for outliers is required. The sample data for $\eta_{new,i}$ is continuous and therefore the presence of outliers is possible. The following approach will be used to identify and address outliers for the parameter $\eta_{new,i}$.

Because the sample size is by definition 30 or above for the parameter $\eta_{new,i}$, outliers will be defined as those data points with values greater than three standard deviations from the mean of the sample for each vintage. The approach for outliers has been validated by the DOE against 'Applied Statistics in Business and Economics, chapter: Sampling distributions and estimation' by Doane and Seward [IRL 61].

(viii) Data archiving and Analysis

Hard copies of the surveys will be kept and the database will have a back up. Original stove purchase contracts, information collected from the Registration Card or other means of acceptance by the users will be stored in the CME's main office. A backup of the project database will also be stored on an electric medium by the CME. This has been checked by DOE with

* As provided in EB69, Annex 5, paragraphs 220 to 290

† As per EB69, Annex 5 paragraphs 258 to 314

Operation & Management plan for the programme submitted by the PP [IRL # 9] and interviews with the CME during the DOE on-site visit.

(ix) Implementation plan

Sampling of the aforementioned three parameters will occur at the end of each monitoring period. The maximum length of one monitoring period will be two years (duration, not calendar years), as AMS II.G., version 3, provides the option for annual or biennial monitoring. The CPA implementer will be responsible for managing the household data collection and entry into the project database. Field personnel will receive training on how to properly deal with surveying techniques and reduce errors and sign a document certifying that there is no conflict of interest of those involved in data collection and analysis. If there is a conflict of interest, the personnel will not be allowed to participate in data collection and analysis. The project database will record the start and end dates of each monitoring period, and record the emission reductions attributable to each monitoring period. Appropriate record keeping procedures will be implemented to ensure that each monitoring period data set can be transparently attributed to its corresponding CPA, preventing any occurrences of double counting. An internal review of the project database will be able to determine the current status of each SSC-CPA, the duration of previous monitoring periods, the households delivering monitoring data, and current verification activities. The CME will elaborate a monitoring report for each CPA and submit to the DOE.

The criteria in EB69, Annex 05, paragraph 38 (a), (f) and (g) have been evaluated and the DOE confirms that sufficient provisions are established in order to obtain unbiased, reliable estimates of the variables during data collection/measurement and in order to minimize non-sampling errors. The objective and reliability requirements are complete and are in line with EB69, Annex 04 and the applied methodology AMS-II. G, version 03 and there is no reason to suspect that the sampling results from the activity will be biased. Mechanisms will be established in order to avoid bias in the answers. Personnel to be engaged to conduct sampling will be adequately trained and qualified and the credentials and/or training materials for the sampling personnel can be checked by the verifying DOE at verification stage. Thus, it will be ensured that the evaluation criterion in EB69, Annex 05, paragraph 38 (h) will be complied with. Adequate archiving of the sampling documents will be guaranteed by the CME.

The CME proposes that the DOE implement a verification system, that will verify the amount of reductions of anthropogenic emissions of greenhouse gases achieved by CPAs under the PoA using a sampling approach. The CME proposes the DOE to apply a multi-stage sampling (as per EB69, Annex 5) and to apply the following steps:

Step 1: Determine the primary sampling units from the population of CPAs included during the specified monitoring period according to the sampling frames mentioned earlier in section ”sampling frame”.

Step 2: Determine the sample size following paragraphs 25-27 of the Standard for sampling and surveys for CDM project activities and PoAs (EB69, Annex 4), Guidelines for Sampling and Surveys for CDM project activities and PoAs (EB69, Annex 5) as well as the procedures outlined in section E.7.2. of the PoA-DD.

Step 3: DOE will randomly select the ICS\housholds after calculating the sample size. DOE will apply the paragraphs 25-27 of the Standard for sampling and surveys for CDM project activities and PoAs (EB69, Annex 4) approach for randomly select the ICS and household.

Step 4: For the monitoring of ICS thermal efficiency, the DOE may ask the CME to conduct WBTs in specific households and Municipalities selected by the DOE in advance of the verification or ask the CME or CPA implementer to coordinate this testing and provide the results to the DOE for verification.

The DOE by assessing EB69, Annex 04 and Annex 05 (Standard and Guidelines for sampling and surveys for CDM project activities and programme of activities) confirm that the sampling plan is

appropriate and plausible and is following the applicable requirements. The DOE used amongst others the recommended evaluation criteria indicated in section V of EB69, Annex 05 for the validation of the sampling plan. The DOE confirms that the evaluation criteria as per Section V of EB69, Annex 5 can be satisfactorily responded when assessing the sampling plan.

Sampling objective, sampling size, sampling target, sampling frame, sampling method, field measurements, QA/QC procedures and implementation plan are deemed to be appropriate and plausible according to the sectoral expertise of the DOE and have been further confirmed and substantiated in on-site interviews with the CME.

The procedures have been reviewed by the assessment team through document review and interviews with the relevant personnel. The information provided has allowed the assessment team to confirm that the proposed monitoring plan is feasible within the project design. The relevant points of monitoring plan have been discussed with the PoA managing entity and the CPA implementers. Specifically; these points include the monitoring methodology, data management, and the quality assurance and quality control procedures to be implemented in the context of the project. Therefore, the PoA managing entity and/or CPA implementer(s) will be able to implement the monitoring plan and the achieved emission reductions can be reported ex-post and verified.

3.7 Stakeholder Consultation

It has been indicated that the local stakeholder consultation is done at the PoA level. The justification of doing local stakeholder consultation at the PoA level has been provided in section D.1 of the PoA-DD.

3.8 Environmental Analysis

The information on environmental analysis has been provided at the PoA level. The justification of doing local Environment analysis at the PoA level has been provided in section C.1 of the PoA-DD.

4 VALIDATION OPINION

TÜV SÜD has performed a validation of the following CPA-DD:

Distribution of ONIL Stoves —Mexico, San Felipe Usila 1

for inclusion under the PoA titled:

Distribution of ONIL Stoves—Mexico

Standard auditing techniques have been used for the validation of the project. A methodology-specific protocol for the CPA has been prepared to conduct the audit in a transparent and comprehensive manner.

The review of the CPA-DD, subsequent follow-up interviews, and further verification of references have provided TÜV SÜD with sufficient evidence to determine the fulfillment of stated criteria in the protocol. In the opinion of TÜV SÜD, the CPA meets all relevant UNFCCC requirements for the CDM if the underlying assumptions do not change. TÜV SÜD recommends the CPA project for inclusion under the PoA.

An analysis, as provided by the applied methodology, demonstrates that the proposed CPA is not a likely baseline scenario. Emission reductions attributable to the CPA are additional to any that would occur in the absence of the project activity. Considering that the project will be implemented as designed, the project is likely to achieve the estimated amount of emission reductions of 40,090 tCO_2e and a total estimated of 280,629 tCO_2e as specified within the final CPA-DD version (version.15).

The validation has been performed following the requirements of the latest version of the CDM VVM and on the basis of the contractual agreement. The single purpose of this report is its use during the registration process as part of the CDM project cycle.

Pune, 03/12/2012

_____

Certification Body “Environment and Energy”
TÜV SÜD South Asia Pvt Ltd

Annex 1: Validation Protocol

Validation Protocol CDM-SSC-CPA-DD

CDM Programme Activity (CPA) Title: Distribution of ONIL Stoves —Mexico, San Felipe Usila 1
Date of Completion: 03-12-2012
Number of Pages: 1

South Asia

Table 1 Conformity of CDM Programme Activity (CPA)

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A. General description of small-scale CDM programme activity (CPA)				
A.1. Title of the small-scale CPA:				
A.1.1. Does the used CPA title clearly enable to identify the unique CDM programme activity?	1	Yes, the CPA title clearly enables to identify the unique CDM programme activity .	☑	☑
A.1.2. Are there any indications concerning the revision number and the date of the revision?	1	Yes, the GSP-CPA-Specific is indicated version number 01, dated 10/12/2009.	☑	☑
A.1.3. Is this consistent with the timeline of the programme's history?	1	Yes	☑	☑
A.2. Description of the small-scale CPA:				
A.2.1. Is the description delivering a transparent overview of the programme activity?	1,2,8,9,12	The description is delivering a transparent overview of the CPA. The project activity involves installation of efficient ONIL cooking stoves in the Mexico. These ONIL stove will reduce the fossil fuel consumption which occurred in the traditional three stone cooking stoves. **Clarification Request No. 1.** Project proponent needs to ensure consistent information about the project implementer in both CPA-DD's (generic and specific). **Clarification Request No. 2.** Project proponent needs to ensure that stove name and type shall be consistent throughout CPA-DD's (specific and generic).	CR	☑
A.2.1.1. Is it unambiguously stated which technology or measures are to be employed by the SSC-CPA?	1, 42	Yes, it has been clearly presented that under the CPA the traditional three stone cooking stoves would be replaced with efficient ONIL stoves.	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A.2.1.2. Are the eligibility criteria for the inclusion of a SSC-PoA into the PoA being met?	1, 42, 49	**Corrective Action Request No.1.** It is not described in the CPA-DD about how project activity is fulfilling eligible criteria of SSC-PoA. Clarify in the CPA-DD.	CAR	☑
A.2.1.3. Does the technical design of the programme activity reflect current good practices?	1,12	It is understood that the ICS is more efficient than traditional stoves.	☑	☑
A.2.1.4. Is a schedule available for the implementation of the programme and are there any risks for delays?	1, 32, 50	**Corrective Action Request No.2.** Project proponent needs to include the schedule for implementation of project activity in the CPA-DD and provide the evidence for the same.	CAR	☑
A.2.2. What proofs are available demonstrating that the programme description is in compliance with the actual situation or planning?	1,45	Warranty card of the stove, operational and management plan of the programme and copy of purchase contract between household and Helps International AC has been submitted by project proponent which clearly demonstrating that the project description given in the CPA-DD is in compliance with the actual situation.	☑	☑
A.2.3. Is the information provided by these proofs consistent with the information provided by the CPA-DD and the PoA-DD?	1	Yes	☑	☑
A.2.4. Is all information presented consistent with details provided by further chapters of the CPA-DD and the PoA-DD?	1	Yes	☑	☑
A.3. Entity/individual responsible for the small scale CPA:				
A.3.1. Does it become evident which entity/individual is responsible for the CPA (the CPA implementer)?	1	It has been indicated that Helps International AC act as implementer of the CPA	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A.3.2. Is there any document substantiating that the stated entity/individual *is* responsible for the implementation of the CPA?	1	**Clarification Request No. 3.** Project proponent needs to provide documentary evidence to substantiate that Helps International AC can carry out in the San Felipe Usila 1.	CR	☑
A.3.3. Is all information on the CPA implementer provided in consistency with details provided by further chapters of the CPA-DD (in particular annex 1)?	1	Yes	☑	☑
A.3.4. Is the CPA implementer project participant of the PoA and if so, is its name correctly stated in the PoA-DD?	1, 5	Yes, CPA implementer is Helps International AC which is the project participant of the PoA also.	☑	☑
A.4. Technical description of the small-scale CPA:				
A.4.1. *Identification of the small scale CPA:*				
A.4.1.1. Is the Host Party stated and consistent with the information provided in the PoA-DD?	1	Yes, Mexico has been indicated as the host country.	☑	☑
A.4.1.2. Are the name and the contact details of the entity/individual responsible for the CPA complete and consistent with other chapters of the CPA-DD (and the PoA-DD, if applicable)?	1	Project proponent needs to refer CAR 1 above	CAR	☑
A.4.1.3. Does the information provided on the location of the programme activity allow for a unique identification of the location and the boundary of the CPA in terms of the geographical area?	1, 18	**Corrective Action Request No.3.** Project proponent needs to include the GPS coordinate in degree for CPA boundary.	CAR	☑
A.4.1.4. Are the geographic reference and the means of identification transparent and clear? Is GPS data provided?	1,18	Project proponent needs to refer CAR 4 above	CAR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A.4.1.5. How is it ensured and/or demonstrated, that the project proponents can implement the project (ownership, licenses, contracts etc.)? (no question from the CPA-DD template)	1, 32, 50	**Clarification Request No. 4.** Project proponent needs to provide documentary evidence to validate the San Felipe Usila 1.	CR	☑
A.4.2. *Duration of the small scale CPA:Description of a typical small-scale CDM programme activity (CPA)*				
A.4.2.1. Is the starting date of the small scale CPA provided?	1, 43	Yes, the starting date of the Mexico, San Felipe Usila 1 is clearly indicated in the CPA-DD real case. **Corrective Action Request No.4.** Project proponent needs to clarify the source of starting date of this CPA in the CPA-DD. Also, indicate the date in dd/mm/yyyy format. **Clarification Request No. 5.** Project Proponent needs to clarify why the starting date of the project activity has considered 30/12/2009 in section A.4.2.1 of CPA-DD (specific) when stove deliveries started to communities on 29/09/2009?	CAR	☑
A.4.2.2. Is the starting date consistent with the PoA timeline and the requirements of the PoA procedures (Procedures para 5d, considering exception according to EB47, meeting report, para 72)?	1,43, 44	Yes, see CAR in section A.4.2.1.	☑	☑
A.4.2.3. Is the operational lifetime of the small scale CPA clearly defined and plausible?	1,12	Yes, the lifetime has been clearly defined and is plausible. **Clarification Request No. 6.** Project proponent needs to submit the documentary evidence to validate the rated life of the ONIL stoves being used under the CPA.	CR	☑

South Asia

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
A.4.3. *Choice of the crediting period and related information:*				
A.4.3.1. Is the starting date of the crediting period stated and plausible (in accordance with the PoA procedures)?	2	The start date has been indicated as 01st April 2010. **Corrective Action Request No.5.** Project proponent needs to indicate the full information on length of renewable crediting period. **Corrective Action Request No.6.** Project proponent needs to mention the starting date of the crediting period in DD/MM/YYYY in section A.4.3.1. of the specific CPA. Also add the statement "or the date of registration, whichever is later" along with a starting date. Project proponent needs to refer relevant CR in POA protocol also.	CAR	☑
A.4.3.2. Is it evident whether renewable or fixed crediting period are chosen, what is the length of the crediting period (first crediting period in the case of renewable	2	Project proponent needs to refer CAR 6 above	CAR	☑
A.4.4. *Estimated amount of emission reductions over the crediting period:*				
A.4.4.1. Estimated amount of emission reductions stated?	1	Yes	☑	☑
A.4.4.2. Estimated amounted consistent with section B 5 of the CPA-DD?	1	Yes	☑	☑
A.4.5. *Public funding of the small-scale programme activity*				

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
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?	1,33	It has been indicated that no public funding will be used. **Clarification Request No. 7.** Project proponent needs to provide information on project financing and also justify with supportive documents that no ODA has been diverted in this programme activity.	CR	☑
A.4.5.2. Is all information provided consistent with the details given in the remaining chapters of the PoA-DD (in particular annex 2)?	1, 42	This information is consistent within CPA –DD.	☑	☑
A.4.6. *Information to confirm that the proposed small scale CPA is not a de-bundled component (considering PoA-de-bundling guidance):*				
A.4.6.1. Is there a system or procedure to detect whether a SSC-CPA to be included in the PoA is not a de-bundled component of another CPA or CDM project?	1,2, 42	As per EB 54, Annex 313, paragraph 10, it is clearly explained that the CPA of PoA is exempted from performing de-bundling check. As each of the independent subsystems/measures included in the CPA of a PoA is no greater than 1% of the small scale thresholds defined by the methodology applied, therefore the CPA of PoA is exempted from performing de-bundling check i.e. considered as being not a de-bundled component of a large scale activity. **Clarification Request No. 8.** Referring to section A.4.6, CPA-DD (specific and generic) stated "Each stove in this project is estimated to save around 0.011 GWh^{th} per year, representing only $5.8*10^{-3}$ per cent of the small-scale threshold". However, value is 6.2*10-3 per cent of the small-scale threshold has mentioned in PoA-DD. Project proponent needs to clarify the reason of this inconsistency.	CR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		Clarification Request No. 9. Referring to section A.4.6 of generic CPA, footnote of page 8 stated "The threshold limit for each CPA with the HELPS International Onil stove is 17,045 obtained by dividing 180 GWhth by the energy savings per stove of 0.0106 GWhth/year" However, according to 1st CPA, stove number is 16,193 and energy savings per stove of 0.011 GWhth/year. Project proponent needs to clarify the reason behind this inconsistency.		
A.4.6.2. Are all PoAs considered which are in the same geographical area and use the same methodology?	1,2, 42	Currently there are no other such PoAs in the region **Corrective Action Request No.7.** Project proponent needs to include the statement of existence/non-existence of any other PoA in the same geographical area and using the same methodology.	CAR	☑
A.4.6.3. Is there a registered CDM project or another CPA (either registered or in the state of application) which has the same activity implemented or has a coordinating/managing entity which also manages a large scale PoA of the same scope *and* the boundary is within 1 km of the boundary of the proposed CPA?	1,2, 42	No	☑	☑
A.4.6.4. Is the information on registered CDM projects or other CPAs transparent, understandable and substantiated by documents?	1,2	There are no such activities currently	☑	☑
A.4.6.5. If the proposed CPA is deemed to be a de-bundled component but the size of	1	Not applicable	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
both activities combined does not exceed the ssc threshold, is this statement provided in a transparent and substantiated manner?				
A.4.7. *Confirmation that the SSC CPA is neither registered as an individual CDM project activity or is part of another registered PoA*				
A.4.7.1. Confirmation provided by coordinating/managing entity or CPA implementer?	1	Yes, the Confirmation has been provided by CPA implementer	☑	☑
B. Eligibility of the small scale CPA and estimation of emission reductions:				
B.1. Title and reference of the registered PoA to which the small scale CPA is added:				
B.1.1. Title and reference provided and correct?	1,49	Yes, the PoA title correctly mentioned.	☑	☑
B.2. Justification of why the small-scale CPA is eligible to be included in the registered PoA::				
B.2.1. Are all criteria as per PoA-DD addressed?	1,49, 52	Project proponent needs to refer relevant CAR and CR in POA protocol and accordingly revise the CPA criteria. **Corrective Action Request No.8.** The eligibility criteria and the compliance with the criteria have to be placed in section B.2 of the CPA-DD (specific and generic). Also, criteria's' usability to assess the inclusion of the CPA has to be demonstrated as per paragraph EB 70, Annex 05.	CAR CR	☑
B.2.2. Are all eligibility criteria met regarding the proposed CPA?	1,49, 52	Project proponent needs to refer relevant CAR and CR in POA protocol and accordingly revise the CPA criteria.	CAR CR	☑
B.2.3. Are the statements substantiated by credible documents?	1,49, 52	Project proponent needs to refer relevant CAR and CR in POA protocol and accordingly revise the CPA criteria.	CAR CR	☑
B.3. Assessment and demonstration of additionality of the SSC CPA, as per eligibility criteria listed in the registered PoA:				
B.3.1. Are the key criteria and data for assessing additionality of a SSC-CPA that is to be	1,49, 52	Project proponent needs to refer relevant CAR and CR in POA protocol and accordingly revise the CPA criteria. Further,	CAR CR	☑

CHECKLIST TOPIC / QUESTION		Ref.	COMMENTS	GSP	Final
	included into the PoA addressed?		**Clarification Request No. 10.** Project Proponent needs to ensure that assessment and demonstration of additionality of the small-scale CPA in both CPA-DD's (generic and specific) is as per CPA eligibility criteria defined in PoA-DD.		
B.3.2.	Are the key criteria and data for assessing additionality of a SSC-CPA that is to be included into the PoA met?	1,49, 52	Project proponent needs to refer relevant CAR and CR in POA protocol and accordingly revise the CPA criteria.	CAR CR	☑
B.3.3.	Does it become evident how these criteria were applied to assess the additionality of the CPA?	1, 8	See CR comment in section B.3.1.	CR	☑
B.3.4.	Does this list include at least one of the following barriers?	1,49, 52	<table><tr><th>Barrier</th><th>Discussed?</th><th>Verifiable?</th></tr><tr><td>Investment</td><td>NA</td><td>NA</td></tr><tr><td>Technological</td><td>Yes</td><td>No</td></tr><tr><td>Due to prevailing practice</td><td>Yes</td><td>No</td></tr><tr><td>Other</td><td>Yes</td><td>No</td></tr></table>Project proponent needs to refer CAR and CR in PoA protocol	CAR CR	☑
B.3.5.	Does the discussion sufficiently take into account relevant national and/or sectoral policies?	1,49, 52	Project proponent needs to refer relevant CAR and CR in POA protocol and accordingly revise the CPA criteria.	CAR CR	☑
B.3.6.	Is transparent and documented evidence provided on the existence and significance of these barriers?	1,49, 52	Project proponent needs to refer CAR and CR above	CAR CR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
B.3.7. Is it appropriately explained how the approval of the programme activity will help to overcome the identified barriers?	1,49, 52	Project proponent needs to refer CAR and CR above	CAR CR	☑
B.4. Description of the sources and gases included in the project boundary and proof that the small scale CPA is located within the geographical boundary of the registered PoA				
B.4.1. Does the SSC-CPA boundary includes the physical and geographical location where the programme activities take place?	1,49, 52	Project proponent needs to refer relevant CAR in POA	CAR	☑
B.4.2. Is there any proof that the CPA is located within the geographical boundary of the registered PoA?	1	Yes, the CPA is occurring in the host country Mexico.	☑	☑
B.4.3. Are all sources and gases within the boundary considered in a clear manner?	1	Yes, the sources and gases within the boundary have been considered in a clear manner.	☑	☑
B.4.4. Does the spatial and technological boundaries as verified on-site comply with the discussion provided by / indication included to the PoA-DD or CPA-DD?	1	Project proponent needs to see CAR above	CAR	☑
B.5. Emission reductions:				
Integrate questions concerning methodological choices and selection of options, if necessary				
B.5.1. *Data and parameters that are available at validation:*				
B.5.1.1. Are the equations, including fixed parametric values, to be used for calculation of emission reductions of a SSC-CPA, completely presented?	1,48	**Clarification Request No. 11.** Project proponent needs to provide the emission reduction calculation sheet. **Clarification Request No. 12.** Each ONIL stove will save 2.63 CERs per stove according to the emission reduction calculation of the spread sheet and mentioned	CAR CR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		in section B.5.2 of the specific CPA-DD. This would result in much less CERs as indicated in section A.4.4 of the specific CPA-DD. Project proponents are requested to clarify the reason of this inconsistency. **Clarification Request No. 13.** Project proponent needs to ensure that parameter and its details are consistent in both CPA-DD's (specific and generic) with the PoA-DD. **Clarification Request No. 14.** Project proponent needs to be ensured that the emission reduction calculation approach shall be consistent in CPA-DD's (specific and generic) according to the PoA-DD. **Corrective Action Request No.9.** Referring to the ex-ante calculation in section B.5 of specific and generic CPA, project proponent needs to add the following parameters and the related calculation step; - Bold, adjusted - Ty, j - how the continuation of baseline stove will be considered in the monitoring and final emission reduction calculation - dropout rate Also consider the above parameters in the monitoring plan		
B.5.1.2.Is the list of parameters presented in chapter B.6.2 considered to be complete with regard to the requirements of the applied methodology?	1,3, 48	Yes, all parameters as per applied methodology is indicated in the CPA-DD	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
B.5.1.3. Leakage relating to the non-renewable woody biomass shall be assessed from ex post surveys of users and areas from where woody biomass is sourced (using 90/30 precision for selection of samples). The following potential sources of leakage were identified: (a) Use/diversion of non-renewable woody biomass saved under the project activity by non-project households/users who previously used renewable energy sources. If this leakage assessment quantifies an increase in the use of non-renewable woody biomass used by the non project households/users attributable to the project activity then By is adjusted to account for the quantified leakage.	1,3	**Corrective Action Request No.10.** Project proponent needs to justify the leakage of the CPA activity is in line with the applied methodology conditions.	CAR	☑
B.5.1.4. If equipment currently being utilized is transferred from outside the boundary to the project activity leakage is to be considered.	1,3	Project proponent needs to refer CAR above	CAR	☑
B.5.1.5.Comment on any line answered with "No"				
B.5.1.5.1. Parameter Title: Bold: Quantity of woody biomass used in the absence of the project activity in tonnes	1,3	Data Checklist: Yes / No / NA Title in line with methodology? Yes Data unit correctly expressed? Yes	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
		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.5.1.5.2. Parameter: $NCV_{biomass}$ Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.015 TJ/tonne)	1,3	Data Checklist / Yes / No / NA Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.5.1.5.3. Parameter Title: $EF_{projected\_fossilfuel}$ Emission factor for the substitution of non-renewable woody biomass by similar consumers. The substitution fuel likely to be used by similar consumers is taken: 71.5 tCO2/TJ for Kerosene, 63.0 tCO2/TJ for Liquefied Petroleum Gas (LPG) or	1,3	Data Checklist / Yes / No / NA Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
the IPCC default value of the other relevant fuel		Measurement method correctly described? Yes		
B.5.1.5.4. Parameter Title: η_{old} : Efficiency of the baseline system being replaced, measured using representative sampling methods or based on referenced literature values (fraction), use weighted average values if more than one type of systems are encountered 0.10 default value may be optionally used if the replaced system is the three stone fire or a conventional system lacking improved combustion air supply mechanism and flue gas ventilation system i.e., without a grate as well as a chimney; for the rest of the systems 0.2 default value may be optionally used	1,3	Data Checklist / Yes / No / NA Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑
B.5.1.5.5. fNRB,y : Fraction of woody biomass saved by the project activity in year y that can be established as non renewable biomass and should be follow the applicable principle given in the methodology to determine.	1,3	Data Checklist / Yes / No / NA Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes	☑	☑

South Asia

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
B.5.1.5.6. Leakage adjustment factor (Ly)	1,3	Data Checklist / Yes / No / NA Title in line with methodology? Yes Data unit correctly expressed? Yes Appropriate description of parameter? Yes Source clearly referenced? Yes Correct value provided? Yes Has this value been verified? Yes Choice of data correctly justified? Yes Measurement method correctly described? Yes		
B.5.2. Ex-ante calculation of emission reductions (B.5.2.):				
B.5.2.1. Is the projection based on the same procedures as used for future monitoring?	1,3	Yes, the projections are based on the same procedures as used for future monitoring.	☑	☑
B.5.2.2. Are the GHG calculations documented in a complete and transparent manner?	1,3	Project proponent needs to refer CR above	CR	☑
B.5.2.3. If there is more than one component of the programme activity, then, are emission reduction calculations provided separately for each component?	1,3	Project proponent needs to refer CR above	CR	☑
B.5.2.4. Is the data provided in this section consistent with data as presented in other chapters of the PoA-DD or CPA-DD?	1,3	Project proponent needs to refer CR above	CR	☑
B.5.3. *Summary of the ex-ante estimation of emission reductions (B 5.3)*				
B.5.3.1. Will the programme activity result in fewer GHG emissions than the baseline scenario?	1,3	Yes, the CPA would use efficient ONIL stoves which are supposed to consume less fuel wood than the traditional three stones cooking stoves fuel consumption.	☑	☑
B.5.3.2. Is the form/table required for the indication of projected emission reductions	1,3	Yes, the table has been correctly applied in the CPA PDD	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
correctly applied?				
B.5.3.3. Do these values comply with small-scale criteria for every year?	1,3	Yes	☑	☑
B.5.3.4. Is the projection in line with the envisioned time schedule for the programme's implementation and the indicated crediting period?	1,3	Project proponent needs to refer CAR 3 above	CAR	☑
B.5.3.5. Is the data provided in this section in consistency with data as presented in other chapters of the PoA- or CPA-DD?	1,3	Project proponent needs to refer relevant CAR and CR in POA protocol	CAR CR	☑
B.6. Application of the monitoring methodology and description of the monitoring plan				
B.6.1. *Description of the monitoring plan for the SSC-CPA*				
B.6.1.1. Is the operational and management structure clearly described and in compliance with the envisioned situation?	1,3	Yes, the operational and management structure has been defined in the CPA-DD. However, Project proponent needs to refer relevant CAR and CR in POA protocol and revise CPA-DD accordingly. **Clarification Request No. 15.** Project proponent needs to be ensured that the sampling procedure of the CPA in CPA-DD's (specific and generic) shall be consistent with the procedure defined in the PoA-DD.	CAR CR	☑
B.6.1.2. Are responsibilities and institutional arrangements for data collection and archiving clearly provided?	1,3	Project proponent needs to refer relevant CAR and CR in POA protocol and revise CPA-DD accordingly.	CAR CR	☑
B.6.1.3. Does the monitoring plan provide current good monitoring practice?	1,3	Project proponent needs to refer relevant CAR and CR in POA protocol and revise CPA-DD accordingly.	CAR CR	☑

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>GSP</th><th>Final</th></tr>
<tr><td>B.6.1.4. If applicable: Does annex 4 provide useful information enabling a better understanding of the envisioned monitoring provisions?</td><td>1,3</td><td>Project proponent needs to refer relevant CAR and CR in POA protocol and revise CPA-DD accordingly.</td><td>CAR
CR</td><td>☑</td></tr>
<tr><td colspan="5">B.6.2. Data and parameters to be monitored by the SSC-CPA</td></tr>
<tr><td>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?</td><td>1,3</td><td>No, the list of parameters presented is not complete. Project proponent needs to refer to CARs and CRs below.
<u>Clarification Request No. 16.</u>
The parameter "continuation of baseline stoves" has not been included in both CPA's (generic and specific) into the monitoring and sampling plan so far and it is not clear how the continuation of baseline stoves will be conservatively considered in the ex-post emission reduction calculation? Project proponent needs to clarify the same.</td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.2. Number of Appliances</td><td>1,3</td><td><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>NA</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>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>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table></td><td>CAR</td><td>☑</td></tr>
</table>

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>GSP</th><th>Final</th></tr>
<tr><td></td><td></td><td><u>Corrective Action Request No.11.</u>
Project proponent needs to indicate the number of appliances value and also provide the supportive document to verify the value.</td><td></td><td></td></tr>
<tr><td>B.6.2.2.1. Parameter Title: η_{new} : Efficiency of the system being deployed as part of the project activity (fraction)</td><td>1,3</td><td><table><tr><th>Data Checklist</th><th>Yes / No / NA</th></tr><tr><td>Title in line with methodology?</td><td>Yes</td></tr><tr><td>Data unit correctly expressed?</td><td>Yes</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided?</td><td>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></td><td>☑</td><td>☑</td></tr>
<tr><td>B.6.2.3. Parameter Title: Annual check of efficiency of all appliances or a representative sample</td><td>1,3</td><td><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>No</td></tr><tr><td>Appropriate description of parameter?</td><td>Yes</td></tr><tr><td>Source clearly referenced?</td><td>Yes</td></tr><tr><td>Correct value provided 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>Yes</td></tr><tr><td>QA/QC procedures appropriate?</td><td>Yes</td></tr></table><u>Corrective Action Request No.12.</u>
Project proponent needs to clarify in detail the measurement</td><td>CAR</td><td>☑</td></tr>
</table>

<table>
<tr><th>CHECKLIST TOPIC / QUESTION</th><th>Ref.</th><th>COMMENTS</th><th>GSP</th><th>Final</th></tr>
<tr><td></td><td></td><td>method to check the efficiency of cooking stoves appliances.</td><td></td><td></td></tr>
<tr><td>B.6.2.4. Parameter Title: Disposal of low efficiency appliance</td><td>1,3</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr><tr><td>QA/QC procedures described?</td><td>No</td></tr><tr><td>QA/QC procedures appropriate?</td><td>No</td></tr></table><u>Corrective Action Request No.13.</u>
It has to be ensured that the replaced low efficiency appliances are disposed off and not used within the boundary or within the region. Project proponent needs to correct the monitoring plan accordingly.</td><td>CAR</td><td>☑</td></tr>
<tr><td>B.6.2.5. Parameter Title:
In order to assess the leakage specified above monitoring shall include data on the amount of woody biomass saved under the project activity that is used by non-project households/users (who previously used renewable energy sources). Other data on non-renewable woody biomass use required for leakage assessment shall</td><td>1,3</td><td><table><tr><th>Monitoring Checklist</th><th>Yes / No</th></tr><tr><td>Title in line with methodology?</td><td>No</td></tr><tr><td>Data unit correctly expressed?</td><td>No</td></tr><tr><td>Appropriate description of parameter?</td><td>No</td></tr><tr><td>Source clearly referenced?</td><td>No</td></tr><tr><td>Correct value provided for estimation?</td><td>No</td></tr><tr><td>Has this value been verified?</td><td>No</td></tr><tr><td>Measurement method correctly described?</td><td>No</td></tr><tr><td>Correct reference to standards?</td><td>No</td></tr><tr><td>Indication of accuracy provided?</td><td>No</td></tr></table></td><td>CAR</td><td>☑</td></tr>
</table>

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
also be collected.		QA/QC procedures described? No QA/QC procedures appropriate? No **Corrective Action Request No.14.** Leakage monitoring should be included in the monitoring parameter		
B.6.2.6. Are there any parameters missing or unclear for future monitoring in order to determine emission reductions?	1,3	Project proponent needs to refer CAR above.	CAR	☑
C. Environmental Analysis				
C.1. Definition of the level at which environmental analysis as per requirements of the CDM modalities and procedures is undertaken:				
C.1.1. Is it defined whether the environmental analysis takes place at PoA or CPA level?	1,49	The environmental analysis takes place at the PoA level.	☑	☑
C.1.2. Is the choice whether the environmental analysis takes place at PoA or CPA level justified?	1,49	Yes, it has been appropriately justified.	☑	☑
C.2. Documentation on the analysis of the environmental impacts of the PoA, including transboundary impacts (not applicable if environmental analysis is undertaken on PoA level):				
C.2.1. Are there any Host Party requirements for an Environmental Impact Assessment (EIA), and if yes, has an EIA been approved?	1	Not Applicable	☑	☑
C.2.2. Has the analysis of the environmental impacts of the programme activity been sufficiently described?	1	Not Applicable	☑	☑
C.2.3. Will the programme create any adverse	1	Not Applicable	☑	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
environmental effects?				
C.2.4. Were transboundary environmental impacts identified in the analysis?	1	Not Applicable	☑	☑
C.3. Project proponent needs to state whether in accordance with the host Party laws/regulations, an environmental impact assessment is required for a typical CPA of the PoA (not applicable if environmental analysis is undertaken on PoA level):				
C.3.1. Have the identified environmental impacts been addressed in the project design sufficiently?	1	Not Applicable	☑	☑
C.3.2. Does the programme comply with environmental legislation in the host country?	1	Not Applicable	☑	☑
C.3.3. Is, per host country laws/regulations, an environmental impact assessment necessary for a typical CPA?	1	Not Applicable	☑	☑
D. Stakeholders' comments				
D.1. Project proponent needs to indicate the level at which local stakeholder comments are invited. Justify the choice:				
D.1.1. Is there a clear statement whether the stakeholder comments were invited at PoA or CPA level?	1	**Corrective Action Request No.15.** In PoA DD it has been indicated that the stakeholder comments will be invited at CPA level. However, CPA DD indicated that the stakeholder comment has been invited at POA level. Project proponent needs to clarify where stakeholder comments were invited at PoA or CPA level.	CAR	☑
D.1.2. Is the choice justified in a clear and reasonable manner?	1	Project proponent needs to refer CAR 13 above	CAR	☑
D.2. Brief description how comments by local stakeholders have been invited and compiled				
D.2.1. Have relevant stakeholders been consulted?	1	Project proponent needs to refer CAR 13 above	CAR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
D.2.2. Have appropriate media been used to invite comments by local stakeholders?	1	Project proponent needs to refer CAR 13 above	CAR	☑
D.2.3. If a stakeholder consultation process is required by regulations/laws in the host country, has the stakeholder consultation process been carried out in accordance with such regulations/laws?	1	Project proponent needs to refer CAR 13 above	CAR	☑
D.2.4. Is the undertaken stakeholder process that was carried out described in a complete and transparent manner?	1	Project proponent needs to refer CAR 13 above	CAR	☑
D.3. Summary of the comments received				
D.3.1. Is a summary of the received stakeholder comments provided?	1	Project proponent needs to refer CAR 13 above	CAR	☑
D.4. Report on how due account was taken of any comments received				
D.4.1. Has due account been taken of any stakeholder comments received, according to the CDM modalities and procedures?	1	Project proponent needs to refer CAR 13 above	CAR	☑
E. Annexes 1 – 4				
E.1.Annex 1: Contact Information				
E.1.1. Is the information provided consistent with the one given under section A.3?	1	Yes	☑	☑
E.1.2. Is the information on all private participants and directly involved Parties presented?	1	Yes	☑	☑
E.2.Annex 2: Information regarding public funding				
E.2.1. Is the information provided on the	1	Project proponent needs to refer CR above	CR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
inclusion of public funding (if any) in consistency with the actual situation presented by the project participants?				
E.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	Project proponent needs to refer CR above	CR	☑
E.3. Annex 3: Baseline information				
E.3.1. If additional background information on baseline data is provided: Is this information consistent with data presented by other sections of the PoA- or CPA-DD?	1	Project proponent needs to refer relevant CAR and CR in POA protocol	CAR CR	☑
E.3.2. Is the data provided verifiable? Has sufficient evidence been provided to the validation team?	1,49	Project proponent needs to refer relevant CAR and CR in POA protocol	CAR CR	☑
E.3.3. Does the additional information substantiate / support statements given in other sections of the PoA- or CPA-DD?	1,49	Project proponent needs to refer relevant CAR and CR in POA protocol	CAR CR	☑
E.4. Annex 4: Monitoring information				
E.4.1. If additional background information on monitoring is provided: Is this information consistent with data presented in other sections of the PoA- or CPA-DD?	1,49	Project proponent needs to refer CAR above	CAR	☑
E.4.2. Is the information provided verifiable? Has sufficient evidence been provided to the validation team?	1,49	Project proponent needs to refer CAR above	CAR	☑
E.4.3. Do the additional information and / or documented procedures substantiate / support statements given in other sections of	1,49	Project proponent needs to refer CAR above	CAR	☑

CHECKLIST TOPIC / QUESTION	Ref.	COMMENTS	GSP	Final
the PoA- or CPA-DD?				

South Asia

Table 2 Resolution of Corrective Action and Clarification Requests

Clarifications and corrective action re-quests by validation team	Ref. to table 1	Summary of programme activity implementer's re-sponse	Validation team Conclusion
Corrective Action Request No.1. It is not described in the PDD about how project activ-ity is fulfilling eligible criteria of SSC-PoA. Clarify in the PDD.	A.2.1.2	Eligibility criteria have been updated according to the PoA DD. Revised CPA DD has been submitted	Eligibility criteria of the CPA in revised CPA-DD (ver-sion.15) have now updated according to the PoA-DD, ver-sion.15 and the guidelines of Annex-05 of EB-70. This issue is now resolved. [IRL # 2, 42, 51] ☑
Corrective Action Request No.2. Project proponent needs to include the schedule for implementation of project activity in the CPA-DD and provide the evidence for the same.	A.2.1.4.	Implementation schedule has been added to Distribu-tion of ONIL Stoves —Mexico, San Felipe Usila 1. The database has also been provided. Evidence for imple-mentation schedule is has been submitted.	Project proponent has included imple-mentation plan of the CPA in the re-vised CPA-DD. The plan details has been verified by DOE with term sheet between CQC Capi-tal LLC and HELPs international and implementation plan of Mexico, San Feli-

			pe Usila 1. [IRL # 32, 50, 51] ☑.
Corrective Action Request No.3. Project proponent needs to include the GPS coordinate for CPA boundary.	A.4.1.3.	GPS coordinates for all stoves have been included in the database. The CME will validate the CPA implementer information. For Mexico, San Felipe Usila 1, the Project Operator is HELPS International. The contact information for HELPS International is included in Annex 1 of the CPA DD	GPS coordinate information of the Mexico, San Felipe Usila 1 has included in the revised CPA-DD. This issue is now resolved. [IRL # 18, 42] ☑
Corrective Action Request No.4. Project proponent needs to clarify the source of starting date of this CPA in the CPA-DD.	A.4.2.1	Due to lack of proper documentation to evidence the installation of stoves, the PP has decided to use December 30, 2009 as the starting date of the POA, as this is the date when the POA-DD was officially posted on the UNFCCC website for Global Stakeholder Comments. Also, as per the Glossary of CDM terms, version 5, Starting date of a CDM programme activity (CPA - All types) "The starting date of a CDM programme activity is the earliest date at which either the implementation or construction or real action of a programme activity be-	Starting date has been considered 30th December 2010 based on the date of first cook stove delivery to households under CPA1. The starting date is not before start date of the PoA. The starting date has been verified with stove delivery receipt. The starting date of the project activity has been considered as per page 28 of CDM Glossary of terms,

		gins. The starting date of the CPA cannot be prior to the commencement of validation of the programme of activities, i.e. the date on which the CDM-POADD is first published for global stakeholder consultation." Per the glossary definition above, the starting date is the earliest proof that stoves were installed after global consultation. For the CPA it is December 30, 2009. The PoA DD has been updated.	version 6. [IRL # 42, 43, 44] ☑
Corrective Action Request No.5. Project proponent needs to indicate the full information on length of renewable crediting period.	A.4.3.1	This information is in the PoA DD, which has been updated to include information.	7 years renewable twice crediting period has been chosen for programme. [IRL # 2, 42] ☑
Corrective Action Request No.6. Project proponent needs to mention the starting date of the crediting period in DD/MM/YYYY in section A.4.3.1. of the specific CPA. Also add the statement "or the date of registration whichever is later" along with starting date.	A.4.3.1.	The starting date of the crediting period has been updated to 01/01/2013 in the specific CPA. The text "or the date of registration, whichever is later" has been added to specific CPA.	Starting date of the crediting period has now mentioned in DD/MM/YYYY.. Also, a statement "statement "or the date of registration whichever is later" has now been added along with

			starting date in section A.4.3.1. of the specific CPA. This issue is now resolved, [IRL # 42] ☑
Corrective Action Request No.7. Project proponent needs to include the statement of existence/non-existence of any other PoA in the same geographical area and using the same methodology.	A.4.6.2	The CPA DD has been updated accordingly. .	Project proponent has included a statement in the CPA-DD on existence/non-existence of any other PoA in the same geographical area and using the same methodology. This issue is now resolved. [IRL # 32, 48, 50] ☑
Corrective Action Request No.8. The eligibility criteria and the compliance with the criteria have to be placed in section B.2 of the CPA-DD (specific and generic). Also, criterias' usability to assess the inclusion of the CPA has to be demonstrated as per EB 70, Annex 05.	B.2.1.	The eligibility criteria and the compliance with the criteria have been moved to section B.2 in both the generic and specific CPA DD. Criteria's usability to assess the inclusion of the CPA has been added to specific CPA DD.	The eligibility criteria and the compliance with the criteria has been mentioned in section B.2 of the CPA-DD (specific and generic) and same is in line with as per EB 70, Annex 05. This issue is now closed.

			[IRL # 42] ☑
Corrective Action Request No.9. Referring to the ex-ante calculation in section B.5 of specific and generic CPA, project proponent needs to add the following parameters and the related calculation step; - Bold,adjusted - ty,j -how the continuation of baseline stove will be considered in the monitoring and final emission reduction calculation - dropout rate Also consider the above parameters in the monitoring plan	B.5.1.1.	The parameters Bold,adjusted, tyj, SSy (continuation of baseline stoves), Ny (number of stoves in operation; i.e, with dropout rate applied), ty,j (time period since installation of stove and the end of the monitoring period) have been added to the CPA DD in the ex ante calculation section. Monitoring plan has been updated.	It has been verified that parameters Bold,adjusted, tyj, SSy (continuation of baseline stoves), Ny (number of stoves in operation; i.e, with dropout rate applied), ty,j (time period since installation of stove and the end of the monitoring period) has now been included in the CPA-DD. This issue is now closed. [IRL # 42] ☑
Corrective Action Request No.10. Project proponent needs to justify the leakage of the CPA activity is in line with the applied methodology conditions.	B.5.1.3.	According to AMS II.G version 3, leakage estimation under a programme of activities can use a net adjustment factor as an option to account for any leakages. The methodology AMS II.G. version 3 states the following: As an alternative to subparagraphs (a) and (b), B_{old} can be multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case the surveys are not required.	Leakage procedure of the programme activity has been revised as per AMS II.G version 3. This issue is now resolved. [IRL # 3, 42] ☑

Corrective Action Request No.11. Project proponent needs to indicate the number of appliances figure and also provide the supportive document to verify the figure.	B.6.2.2	The Mexico, San Felipe Usila 1 DD has the number of appliances. The accompanying database verifies the figure. The implementation schedule and Term Sheet CQC-HELPS " has been provided.	Project proponent has submitted term sheet and implementation plan to verify the stove numbers of the Mexico, San Felipe Usila 1. This issue is now resolved. [IRL # 32, 50] ☑
Corrective Action Request No.12. Project proponent needs to clarify in detail the measurement method to check the efficiency of cooking stoves appliances.	B.6.2.4.	Aprovecho Center Data has been provided. CPA DD has been submitted	Project Proponent has submitted "The Aprovecho test results of the ONIL stove" done by Aprovecho Research center to verify the ONIL stove. This issue is now resolved. [IRL # 13] ☑
Corrective Action Request No.13. Leakage monitoring should be included in the monitoring parameter	B.6.2.7.	Monitoring plan has been updated. According to AMS II.G version 3, leakage estimation under a programme of activities can use a net adjustment factor as an option to account for any leakages. The methodology AMS II.G. Version 3 states the following: As an alternative to subparagraphs (a) and (b), B_{old}	Leakage of the programme activity has been updated according to AMS II.G version 3. This issue is now

		can be multiplied by a net to gross adjustment factor of 0.95 to account for leakages, in which case the surveys are not required.	resolved. [IRL # 2, 3, 42, 49, 51] ☑
Corrective Action Request No.14. In PoA DD it has been indicated that the stakeholder comments will be invited at CPA level. However, CPA DD indicated that the stakeholder comment has been invited at POA level. Project proponent needs to clarify where stakeholder comments were invited at PoA or CPA level.	D.1.1.	Stakeholder comments were invited at the PoA level. Both PoA DD and CPA DD have been updated.	Stakeholder comments were invited at the PoA level. Same has now consistent throughout final CPA-DD and PoA-DD. This issue is now resolved [IRL # 42, 49, 51] ☑
Clarification Request No. 1. Project proponent needs to ensure the consistent information about project implementer in both CPA-DD's (generic and specific).	A.2.1.	CPA implementer information has been updated in both specific and generic CPA DDs	It has been verified by DOE that CPA implementer name is consistent in both CPA-DD's (generic and specific) [IRL # 42, 51] ☑
Clarification Request No. 2. Project proponent needs to ensure that stove name and type shall be consistent throughout CPA-DD's (specific and generic).	A.2.1.	Generic and specific CPA-DD's have been updated. For consistency, the term Improved Cook Stove (ICS) will be used	Stove type is Improved Cook Stove (ICS) and same is now consistent in throughout CPA-DD's (specific and generic)

			[IRL # 42, 51] ☑
Clarification Request No. 3. Project proponent needs to provide documentary evidence to substantiate that Helps International AC can carry out in the San Felipe Usila 1.	A.3.2.	Evidence in the form of a management and operations plan and the database of implemented stoves has been provided.	Project proponent has submitted operation management plan, stove delivery receipt, stove warranty card which demonstrating that Helps international has been carried out stove implementation of the San Felipe Usila 1. This issue is now resolved. [IRL # 9, 43, 45] ☑
Clarification Request No. 4. Project proponent needs to provide documentary evidence to validate the San Felipe Usila 1.	A.4.1.5	Implementation plan and database of San Felipe Usila 1 has been submitted to DOE.	Project proponent has been submitted Implementation plan and database of San Felipe Usila 1 to verify the details of CPA. [IRL # 50, 53] ☑
Clarification Request No. 5. Project Proponent needs to clarify why the starting date of the project activity has considered 30/12/2009 in section A.4.2.1 of CPA-DD (specific) when stove deliveries started to communities on 29/09/2009?	A.4.2.1.	Starting date of the specific CPA is 30/12/2009. The date 29/09/2009 for delivery date is incorrect. Stoves installed before the start date of 30/09/2009 will not be included in the CPA. The specific CPA-DD has been updated accordingly.	First stove is delivered on 30/12/2009 and same is considered as a starting date of the project

			activity. Starting date of the CPA-DD is now corrected with 30/12/2009. This has been verified by DOE with revised CPA-DD. [IRL # 42, 51] ☑
Clarification Request No. 6. Project proponent needs to submit the documentary evidence to validate the rated life time of the ONIL stoves being used under the CPA.	A.4.2.3.	The concept of rate lifetime has not been developed for stoves. Nonetheless, the POA DD describes that the expected operational lifetime of the stove is 10 years. The PoA DD describes how the stoves will be replaced in households, or removed from the project, if they stop working.	Lifetime of the stove is 10 years. It has been cross checked with technical detal of the stove. This issue is now resolved [IRL # 12] ☑
Clarification Request No. 7. Project proponent needs to provide information on project financing and also justify with supportive documents that no ODA has been diverted in this programme activity.	A.4.5.1.	Audited financials have been provided.	Project proponent has submitted letter of Sibley and Company (Certified Public Accountants & Business Consultants) which is confirming that no ODA fund is diverted in this programme of activity. This issue is now resolved

			[IRL # 33] ☑
Clarification Request No. 8. Referring section A.4.6, CPA-DD (specific and generic) stated "Each stove in this project is estimated to save around 0.011 GWh^{th} per year, representing only $5.8*10^{-3}$ per cent of the small-scale threshold". However, value is 6.2*10-3 per cent of the small-scale threshold has mentioned in PoA-DD. Project proponent needs to clarify the reason of this inconsistency.	A.4.6.1.	Each Onil stove saves an estimated 0.013 GWth per year, representing $7.2 *10^{-3}$ of the small-scale threshold. Specific CPA-DD, and PoA-DD have been updated.	Project proponent has submitted emission reduction spread sheet where it has been demonstrated that Each Onil stove saves an estimated 0.013 GWth per year, representing $7.2 *10^{-3}$ of the small-scale threshold. This is now clarified in CPA-DD, and PoA-DD. [IRL # 48, 50, 53] ☑
Clarification Request No. 9. Referring to section A.4.6 of generic CPA, footnote of page 8 stated "The threshold limit for each CPA with the HELPS International Onil stove is 17,045 obtained by dividing 180 GWhth by the energy savings per stove of 0.0106 GWhth/year" However, according to 1^{st} CPA, stove number is 16,193 and energy savings per stove of 0.011 GWhth/year. Project proponent needs to clarify the reason behind this inconsistency.	A.4.6.1	The threshold of the CPA will vary according to the ICS used. CPA implementer will include the threshold limit per eligibility criteria (i). The number of stoves for the specific CPA is 13,859	Project proponent has submitted emission reduction spread sheet where it has been demonstrated that stove number will not cross 13,859 to confirm the threshold limit 180 GWhth. And accordingly CPA-DD has been updated.

			[IRL # 48, 50, 53] ☑
Clarification Request No. 10. Project Proponent needs to ensure that assessment and demonstration of additionality of the small-scale CPA in both CPA-DD's (generic and specific) is as per CPA eligibility criteria defined in PoA-DD.	B.3.1.	Per EB 60, Annex 26, paragraph 4, a full additionality assessment is not required in the context of component project activities (CPA), rather the confirmation of additionality for CPAs should be conducted by means of the eligibility criteria. Thus, eligibility criteria now are used in assessment and demonstration of additionality. Generic and specific CPA-DDs have been updated accordingly.	Project proponent has included additionaly criteria under CPA inclusion criteria. Generic and specific CPA-DDs have been updated accordingly. [IRL # 48, 49,50, 53] ☑
Clarification Request No. 11. Project proponent needs to provide the emission reduction calculation sheet.	B.5.1.1.	The emission reduction sheet has been provided.	CER calculation sheet has been submitted to DOE. This issue is now resolved. [IRL# 42, 48] ☑
Clarification Request No. 12. Each ONIL stove will save 2.63 CERs per stove according to the emission reduction calculation of the spread sheet and mentioned in section B.5.2 of the specific CPA-DD. This would result in much less CERs as indicated in section A.4.4 of the specific CPA-DD. Project proponents are requested to clarify the reason of this inconsistency.	B.5.1.1.	Ex-ante calculations show that each ONIL stove will reduce 2.89 CERs per year. The number of stoves in the CPA is 13,859. The Excel ER sheet and the relevant sections of the specific CPA-DD have been updated accordingly.	Project proponent has submitted emission reduction spread sheet which demonstrate that each ONIL stove will reduce 2.89 CERs per year. The number of stoves in the CPA is 13,859. This value has been up-

			dated in both CPA-DD's (specific and generic) [IRL # 48, 50, 53] ☑
Clarification Request No. 13. Project proponent needs to ensure that parameter and its details are consistent in both CPA-DD's (specific and generic) with the PoA-DD.	B.5.1.1.	Both generic and specific CPA-DDs have been updated to be consistent with PoA DD parameters.	It has been verified by DOE that monitoring parameter details are now updated both CPA-DD's (specific and generic) according to the PoA-DD. [IRL # 49, 50, 53] ☑
Clarification Request No. 14. Project proponent needs to be ensured that the emission reduction calculation approach shall be consistent in CPA-DD's (specific and generic) according to the PoA-DD.	B.6.1.1.	The emission reduction calculation approach has been updated for consistency between PoA-DD and CPA-DD's.	It has been verified that emission reduction calculation approach in CPA-DD's (specific and generic) has now been updated according to the PoA-DD. [IRL # 48, 50, 53] ☑
Clarification Request No. 15. Project proponent needs to be ensured that the sampling procedure of the CPA in CPA-DD's (specific and generic) shall be consistent with the procedure defined	B.6.1.1.	The sampling approach has been updated for consistency between PoA-DD and CPA-DD's.	It has been verified that sampling approach in CPA-DD's (specific and ge-

in the PoA-DD.			neric) has now been updated according to the PoA-DD. [IRL # 48, 50, 53] ☑
Clarification Request No. 16. The parameter "continuation of baseline stoves" has not been included in both CPA's (generic and specific) into the monitoring and sampling plan so far and it is not clear how the continuation of baseline stoves will be conservatively considered in the ex-post emission reduction calculation? Project proponent needs to clarify the same.	B.6.2.1.	Parameter SSy has been included in both generic and specific CPA DD's monitoring and sampling plan. The parameter will be conservatively considered in ex-post ER calculations by applying a correction factor that excludes the amount of fuel wood used by baseline stoves and the number of households using a baseline stove (SSy).	Project proponent has been included Parameter SSy in both generic and specific CPA DD's monitoring and sampling plan. This parameter will be conservatively considered in ex-post ER calculations by applying a correction factor that excludes the amount of fuel wood used by baseline stoves and the number of households using a baseline stove (SSy). [IRL # 48, 50, 53] ☑

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
-	-	-

Annex 2: Information Reference List

IRL No.	Document or Type of Information	Date of document
1	CPA-DD for GSP http://cdm.unfccc.int/ProgrammeOfActivities/Validation/DB/2WI373KQPBX3HHZVL1K39W9CFO8OJQ/view.html	10-12-2009
2	UNFCCC homepage: http://cdm.unfccc.int	--
3	Approved small scale baseline and monitoring methodology AMS II G, Version.03	--
4	On-site interviews and inspections of the project site of the "Distribution of ONIL Stoves—Mexico" by TUV SÜD validation team, Conducted on September 4-7, 2010 Validation team on site : Sandeep Kanda * TÜV SÜD Industrie Service GmbH Arturo Lemus Mtz TÜV SÜD América de México Supratik Dutta TUV SUD South Asia Interviewed persons : Kristel Dorion EnergetixClimate (Project Consultant) Richard Grinnell Helps International AC Rodolfo Díaz Helps International AC Daniel Farchy C-Quest Capital LLC **Left the organization*	
5	Letter of Approval (LoA) from Ministry of Environment and Natural Resources, Mexico; authorizing Helps International A C and C-Quest Capital LLC as a project participant;	31.08.2011
6	Letter of Approval (LoA) from ministry of infrastructure and the environment, The state of Netherlands	06-10-2011
7	FAO, Woodfuels and climate change mitigation. Case studies for Brazil, India and Mexico, Rome 2010, published by Food and agriculture organization of the united nation.	Submitted on October 2010
8	Minutes of Board meeting of Help international A C held on 29.09.2009	29.09.2009
9	Operational and management plan of the Helps international A C for the cook stove project	Submitted on October 2010

IRL No.	Document or Type of Information	Date of document
10	Mexico forest information and data http://rainforests.mongabay.com/deforestation/2000/Mexico.htm	Last assessed on February 2012
11	An article “From cook stoves to cooking systems: the integrated program on sustainable household energy use in Mexico”, part of the book “Energy for sustainable Development”	Submitted on October 2010
12	Technical details of the ONIL stove	Submitted on October 2010
13	The Aprovecho test results of the ONIL stove done by Aprovecho Research Center	Submitted on October 2010
14	The special program for climate change (PECC) 2009-2012, published by the climatic international commission of the secretarial climate change	Submitted on October 2010
15	National Energy Savings Commission http://www.conuee.gob.mx/wb/CONAE/english	Last assessed on February 2012
16	Trust Fund for Electrical Energy http://www.fide.org.mx/home/home.asp	Last assessed on February 2012
17	National Strategy for Climate Change 2007 and 2009, The Ministry of Environment and Natural Resources (SEMARNAT)	Submitted on August 2011
18	Geographical coordinates for Mexico https://www.cia.gov/library/publications/the-world-factbook/geos/mx.html	Last assessed on February 2012
19	IDRC report : Improved cook stove Programs, published in the year 1998	Submitted on August 2011
20	Research paper on “cook stoves and obstacles to technology adoption by the poor, published by FREEMAN SPOGLI INSTITUTE FOR INTERNATIONAL STUDIES	Published on 2009
21	Ashden Awards Report on stoking up a cook stove revolution	Last assessed on February 2012

IRL No.	Document or Type of Information	Date of document
	www.ashdenawards.org/files/pdfs/reports/Cookstove_report_final.pdf	
22	A study of rural poverty in Mexico, prepared by world bank	Submitted on December 2011
23	Applied Statistics in Business and Economics, author: David P Doane and Lori E. Seward.	Submitted on December 2011
24	Tulane Economics Working Paper Series on Fuel Choice, Indoor Air Pollution, and Children's Health http://econpapers.repec.org/paper/tulwpaper/0803.htm	Last assessed on February 2012
25	Mexican General Ecological Balance and Environmental Protectionhttp://www.diputados.gob.mx/LeyesBiblio/pdf/148.pdf	Last assessed on February 2012
26	An article on CDM Market brief, published by Germany Trade & Invest and DEG KFW Bankengruppe	July 2009
27	An article on indoor pollution silent and deadly, published in The Economist book (page 72)	25.09. 2010
28	Reforestation, External Evaluation 2007 Fiscal year (Reforestacion, Evaluacion Externa Ejercicio Fiscal 2007) national forestry commission, December 2008 www.era-mx.org/biblio/Evaluacion_Colpos_Reforestacion_2007.pdf	Last assessed on February 2012
29	Brief of the REMBIO (The Mexican Bioenergy Network)	Submitted on December 2011
30	An article on the failure of “Green” Stoves forseen published in the morning edition of Reforma newspaper, author: Adriana Alatorre	04.09.2010
31	Participant list of the training on Installation and operation of ONIL Stove, HELPS International A C	Submitted on December 2011
32	Term sheet signed between C-Quest Capital LLC and Helps International A C	03.02.2010
33	No ODA funds in the project activity confirmed by Sibley and Company (Certified Public Accountants & Business Consultants)	10.03.2011
34	A Presentation on ONIL stove prepared by HELPS International A C	Submitted on December 2011

IRL No.	Document or Type of Information	Date of document
35	Purchase contract between household and HELPS International A C	Submitted on December 2011
36	Training plan for ONIL stove installation and maintenance	Submitted on December 2011
37	Procedures to obtain a Host Country Approval Letter for the reduction or capture of greenhouse gases, Intersecretarial Commission on Climate Change (CICC)	Submitted on December 2011
38	Self declaration on no technology transfer from Annex-1 countries to Mexico in the production of ONIL stoves, HELPS International A C	11.11.2011
39	An article on fuel in exchange for food, barter method between indigenous people in Mexico, published by AFP	18.01.2009
40	Greenhouse Gas National Inventory 1990 to 2006	Submitted on December 2011
41	Water boiling test report, HELPS International A C	Submitted on December 2011
42	Final CPA-DD, version 15	23.11.2012
43	Stove delivery receipt of Police Agent (Lopez Ruiz Victor), In the locality of San Antonio, in the municipality of Oaxaca	30.12.2009
44	CDM Glossary of terms, version 6	--------
45	Stove registration card	Submitted on December 2011
46	Food and Agriculture organization of the United nation's fuel wood survey guideline www.fao.org/docrep/005/y3779e/y3779e00.htm	Last assessed on March 2012
47	The world bank technical paper on "What makes people cook with improved biomass stove- A comparative international review of stove programs.	Submitted on March 2012

IRL No.	Document or Type of Information	Date of document
48	Final San Felipe Usila 1 emission reduction spreadsheet	Submitted on November 2012
49	Final PoA-DD (Version.15)	23.11.2012
50	Implementation plan of San Felipe Usila 1	Submitted on March 2012
51	Final CPA-DD (Generic)	submitted on November 2012
52	Final PoA validation report (version. 06)	03.12.2012
53	Helps San Felipe Usila 1 database	Submitted on July 2012
54	Household Cook stoves, Environment, Health, and Climate Change, published by The World Bank on Lifetime of the cooking stove.	May 2011
55	Estimations of Household Firewood use 1990-2024, national autonomous university of Mexico, ecosystems research centre.,	10.01.2010
56	Guidelines for sampling and surveys for cdm project activities and programme of activities (version.02), Annex-5 of EB 69	----
57	Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (Version.02)	----
58	Standard for demonstration of additionality, development of eligibility criteria and application of multiple methodologies for programme of activities (Version.02)	-----
59	Self deceleration letter from Helps International where Helps confirmed that no ICS which is part of San Felipe Usila 1 is the part of any carbon scheme project and no ODA funds diverted into CPA	Submitted on July 2012
60	Self declaration from Helps International (implementer of San Felipe Usila 1) on all ICS installed under Mexico, San Felipe Usila 1 are within the boundary of Mexico	06.06.2012
61	Sample size estimation spread sheet and pilot study on the database	Submitted on November 2012

Annex 3: Appointment Certificates

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

South Asia

CERTIFICATE OF APPOINTMENT

Mr. Agarwal, Nikunj fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	22.03.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		22.03.12	22.03.12	22.03.12	22.03.12	1.1,1.2, 3.1, 4.10, 13.1,13.2, 15.2

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	22.03.12					
Further countries						
Financial Expertise						
Date	22.03.2012					

Qualification in technical areas	
Technical Area	**Date**
1.2_Energy generation from renewable energy source	22.03.12
13.1_Waste handling and disposal	22.03.12
3.1_Energy demand	22.03.12
13.2_15.2_Animal waste management	22.03.12
1.1_4.10_Thermal energy generation..	23.11.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.
In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.
Your Certificate has the internal reference no. CB-IND-CCP-0001/001.

Date	Signature
23.11.2012	

TÜV®

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD South Asia

CERTIFICATE OF APPOINTMENT

Mr. Dutta, Supratik fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	07.04.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		07.04.12	07.04.12			1.2

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	07.04.12					
Further countries						
Financial Expertise						
Date	07.04.12					

Qualification in technical areas	
Technical Area	**Date**
1.2_Energy generation from renewable energy source	07.04.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.
In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.
Your Certificate has the internal reference no. CB-IND-CCP-0012/001.

Date	Signature
21.11.2012: Extension of Validity	

TÜV®

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

South Asia

CERTIFICATE OF APPOINTMENT

Mr. Kleiser Thomas fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	25.03.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		25.03.12	25.03.12	25.03.12	25.03.12	1.1, 1.2, 4.1, 4.10

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	25.03.12					
Further countries						
Financial Expertise						
Date	25.03.12					

Qualification in technical areas	
Technical Area	**Date**
1.1_4.10_Thermal energy generation....	25.03.12
1.2_Energy generation from renewable energy source	25.03.12
4.1_Cement sector	25.03.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.

In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.

Your Certificate has the internal reference no. CB-IND-CCP-0022/001.

Date	Signature
21.11.2012: Extension of Validity	

TÜV®

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

South Asia

CERTIFICATE OF APPOINTMENT

Mr. Roy, Bratin fulfills the requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd to participate in audits.

Qualification applicable to					
Standard	CDM	GS	VCS	VER	Other
Date	22.11.12				

Qualification as						
Status	Trainee	Validator	Verifier	Team Leader	Technical Reviewer	Technical Expert
Date		22.11.12	22.11.12	22.11.12	22.11.12	1.1, 1.2, 3.1, 4.10,13.1

Other qualification						
Country Expertise						
Region	1	2	3	4	5	Other
Date	22.11.12					
Further countries						
Financial Expertise						
Date	22.11.12					

Qualification in technical areas	
Technical Area	**Date**
1.1_4.10_Thermal energy generation	22.11.12
1.2_Energy generation from renewable energy source	22.11.12
3.1_Energy demand	22.11.12
13.1_Waste handling and disposal	22.11.12

This appointment is valid until 28.02.2013 and is bound by internal requirements of the Certification Body "Environment and Energy" of TÜV SÜD South Asia Pvt Ltd.
In case of loss of validity of this certificate as per result of an assessment according to internal procedures or due to any other reason, it will be properly communicated to you.
Your Certificate has the internal reference no. CB-IND-CCP-0038/001.

Date	Signature
22.11.2012	

TÜV®