VALIDATION OPINION FOR REVISION OF REGISTERED PoA MONITORING PLAN

Cool nrg Carbon Investments Pty Ltd

PoA- 2535'CUIDEMOS Mexico (Campana De Uso Intelegente De Energia Mexico) – Smart Use of Energy Mexico'

UNFCCC Ref. No. 2535

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Validation Opinion for Revision of Registered POA Monitoring Plan:

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Abbreviations

CAR	Corrective Action Request
CER	Certified Emission Reduction
CFL	Compact Florescent Lamp
CL	Clarification Request
CLA	Clarifications
CPA-DD	Component Project Activity Design Document
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CoP	Conference of Parties
CME	Coordinating / Managing Entity
DMS	Data Management System
DOE	Designated Operational Entity
EB	Executive Board
ER	Emission Reduction
FAR	Forward Action Request
IEC	International Electro-Technical Commission
GHG	Green House Gas Emissions
GPRS	General packet radio service
GSM	Global System for Mobile Communications
ILB	Incandescent Light Bulb
kW	Kilo Watt
kWh	Kilo Watt Hours
LR	Lean Radar
CME	Component Managing Entity
MoP	Modalities of Parties
MP	Monitoring Plan
PoA	Programme of Activities
PoA-DD	Programme of Activity Design Document
PCCG	Project Cross-Check Sample Group
PSG	Programme Sample Group
RMP	Revision in Monitoring Plan
SSC	Small Scale
UNFCCC	United Nation Framework Convention on Climate Change
VVM	Validation and Verification Manual
W	Watt

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1. Validation Opinion

Paragraph 57 of the modalities and procedures for the CDM allows project participants to revise monitoring plans in order to improve accuracy and/or completeness of information, subject to the revision being validated by a Designated Operational Entity.

SGS United Kingdom Ltd has been contracted by Cool nrg Carbon Investments Pty Ltd to perform such a validation of the revision of monitoring plan according to the procedure detailed in Annex 28 to EB 49 meeting report; the registered monitoring plan is part of the PoA-DD of registered CDM project CUIDEMOS Mexico (Campana De Uso Intelegente De Energia Mexico) - Smart Use of Energy Mexico and UNFCCC ref no.2535. The purpose of a validation is to have an independent third party assessment of the revision of monitoring plan. In particular, the level of accuracy and/or completeness in the proposed revision of the monitoring plan, and the conformity with approved monitoring methodology applicable to the project activity.

By applying the proposed revision of monitoring plan in the PoA-DD by the CME as mentioned in section A.4.4.1, A.4.4.2, E.6.3, E.7 and E.7.2 of the PoA-DD and B.5, B.6 and Annex 4 (Annex 7 and Annex 8) of CDM SSC-CPA-DD the following changes are being done to the registered PoA-DD.

In the PoA-DD document the revision in monitoring plan includes the revision of section A.4.4.1 & A.4.2.2 of the PoA-DD in terms of Monitoring Plan of the entire PoA wherein the revised Annex 7 ('CUIDEMOS Mexico PoA - Sampling Plan) which provides a detailed description of the statistical methods used to determine data collection and calculations for the PSG and PCCG parameters used in the emission reduction calculations has been specified. Further, specific procedure for non inclusion of duplicate entries and clarity on statistical approach for each CPA has been specified. Section E.6.3 has been revised by the CME with the change of parameter $\mathbf{n_{PSG}}$ as number of households with value of 220 as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs for the entire POA population within the project boundary of Mexico and will be randomly selected from the entire population undertaken by applying 95/10 confidence/precision for the sample size calculation of all CPAs together in accordance with the footnote 13 of paragraph 19 of EB65 Annex 2 and of $\mathbf{n_{PCCG}}$ as 97 as Total sample size used for checking to ensure ongoing operation of project devices for each block of CPA/s. These are data which are to be reported in the CDM-SSC-CPA-DD form. CME has revised section E.7 with revision of the parameter $\mathbf{n_k}$ (Number of operational CFLs) value of data applied for the purpose of calculating expected emission reductions in section B.5 as a value to be filled in each CPA-DD by the CME, similarly for the parameter $\mathbf{n_i}$(Number of incandescent bulbs collected), the Value of data applied for the purpose of calculating expected emission reductions in section B.5 has been revised as To be filled by the implementer in the SSC-CPA. Accordingly, parameters $\mathbf{p_i}$ and $\mathbf{p_k}$ revision has been done by the CME with insertion of the data as per the each SSC-CPA by the CME. The CME proposes to change section E.7.2 on the monitoring plan based on the above revisions.

In the Generic-CPA-DD document, the CME proposed the changes in section B.5 and B.6 as per the changes in the PoA-DD document for the parameters $\mathbf{n_{PSG}}$ as number of random households with value of 220 for the entire population of the POA undertaken by applying 95/10 confidence/precision for the sample size calculation as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs and of $\mathbf{n_{PCCG}}$ 97 as Total sample size used for checking to ensure ongoing operation of project devices for each block of CPA/s. The Annex 7 and Annex 8 have been removed in the revised monitoring plan and the revised Annex 7 is the Annex 7 - CUIDEMOS Mexico_Sampling Plan RMP representing the new Sampling of the POA

This revision improves the accuracy of information provided and consistency in the registered PoA-DD and the monitoring plan. Furthermore, we confirm that:

(a) the proposed revision points have been described, and an assessment has been provided to substantiate the reasons for each of the proposed revision points of the registered monitoring plan, using objective evidence;

(b) the proposed revision of the monitoring plan ensures that the level of accuracy or completeness in the monitoring and verification process is not reduced as a result of the revisions;

(c) the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity whilst ensuring the conservativeness of the emission reductions calculation.

(d) the findings of the previous verification report have been taken into account

Signed on Behalf of the Validation Body by Authorized Signatory

Signature:

Name: Siddharth Yadav

Date: 10-07-2012

2. Introduction

2.1 Objective

Paragraph 57 of the modalities and procedures for the CDM allows project participants to revise monitoring plans in order to improve accuracy and/or completeness of information, subject to the revision being validated by a Designated Operational Entity.

SGS United Kingdom Ltd has been contracted by Cool nrg Carbon Investments Pty Ltd to perform such a validation of the revision of monitoring plan according to the procedure detailed in Annex 28 to EB 49 meeting report; the registered monitoring plan is part of the POA-DD of registered POA CUIDEMOS Mexico (Campana De Uso Intelegente De Energia Mexico) - Smart Use of Energy Mexico and UNFCCC ref. no.2535 The purpose of a validation is to have an independent third party assessment of the revision of monitoring plan. In particular, the level of accuracy or completeness in the proposed revision of the monitoring plan, and the conformity with the approved monitoring methodology applicable to the project activity.

The Validation was performed in accordance with the UNFCCC criteria for the Clean Development Mechanism (CDM) and the host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

SGS reviewed the project design documentation (revised monitoring plan), using a risk based approach and conducted follow-up interviews.

2.2 Scope

The scope of the validation is defined as an independent and objective review of revision of monitoring plan. The information in these documents is reviewed against the Kyoto Protocol requirements, the UNFCCC rules and associated interpretations.

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

2.3 GHG Project Description

Referring to
http://cdm.unfccc.int/ProgrammeOfActivities/poa_db/17BH6AJX524TYQUZF8KGCWV3OIPSE9/view , the project webpage, there is no change in the project activity description. The project was registered on 31st July 2009 under UNFCCC ref. no.2535.

3. Methodology

3.1 Review of PoA-DD and Additional Documentation

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

3.2 Use of the Validation Protocol

The validation protocol used for the assessment is partly based on the templates of the CDM Validation and Verification Manual version 1.2 (EB55 Annex.1):

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

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

Checklist Question	Ref ID	Means of Verification (MoV)	Comment	Draft and/or Final Conclusion
The various requirements are linked to checklist questions the project should meet.	Lists any references and sources used in the validation process. Full details are provided in the table at the bottom of the checklist.	Explains how conformance with the checklist question is investigated. Examples of means of verification are document review (DR) or interview (I). N/A means not applicable.	The section is used to elaborate and discuss the checklist question and/or the conformance to the question. It is further used to explain the conclusions reached.	This is either acceptable based on evidence provided (Y/OK), or a Corrective Action Request (CAR) due to non-compliance with the checklist question (See below). A Clarification request (CL) is raised if information is insufficient or not clear enough to determine whether the applicable CDM requirements have been met.

The validation protocol is attached with the report as Annex 1.

3.3 Findings

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

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

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

I. Non-conformities with the monitoring plan or methodology are found in monitoring and reporting, or if the evidence provided to prove conformity is insufficient;

II. Mistakes have been made in applying assumptions, data or calculations of emission reductions which will impair the estimate of emission reductions;

III. Issues identified in a FAR during validation to be verified during verification have not been resolved by the project participants.

A Forward Action Request (FAR) is raised during verification for actions if the monitoring and reporting require attention and/or adjustment for the next verification period.

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

Corrective Action Requests, Clarification Requests and Forward Action Requests are raised in the draft validation protocol and detailed in a separate form (Findings Overview). In this form, the Project Developer is given the opportunity to address and "close" outstanding CARs and respond to CLs and FARs. The detailed Finding Overview is attached with this document as Annex 2.

3.4 Internal Quality Control

Following the completion of the assessment process and a recommendation by the Assessment team, all documentation will be forwarded to a Technical Reviewer. The task of the Technical Reviewer is to check that all procedures have been followed and all conclusions are justified. The Technical Reviewer will either accept or reject the recommendation made by the assessment team.

4. Validation Findings

4.1 Application of Monitoring Methodology and Monitoring Plan

Type of Revision

The revision of monitoring plan is a result of revisions by the CME as mentioned in section A.4.4.1, A.4.4.2, E.6.3, E.7 and E.7.2 of the PoA-DD[/6/] and B.5, B.6 and Annex 4 (Annex 7 and Annex 8) of CDM SSC-CPA-DD[/7/].

In the PoA-DD document the revision in monitoring plan includes the revision of section A.4.4.1 & A.4.2.2 of the PoA-DD in terms of Monitoring Plan of the entire PoA wherein the revised Annex 7 ('CUIDEMOS Mexico PoA - Sampling Plan) which provides a detailed description of the statistical methods used to determine data collection and calculations for the n_{PSG} and n_{PCCG} parameters used in the emission reduction calculations has been specified. Further, specific procedure for non inclusion of duplicate entries and clarity on statistical approach for entire POA each block of CPA/s included in the POA has been specified. Section E.6.3 has been revised by the CME with the change of parameter $\mathbf{n_{PSG}}$ as number of households with value of 220 as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs randomly for the entire PoA population within the boundary of Mexico only undertaken by applying 95/10 confidence/precision for the sample size calculation covering all the CPAs under the PoA as per the requirement of footnote 13 of paragraph 19 of EB65 Annex 2 and $\mathbf{n_{PCCG}}$ of 97 as Total sample size used for checking to ensure ongoing operation of project devices each block of CPA/s. These are data which are to be reported in the CDM-SSC-CPA-DD form. CME has revised section E.7 with revision of the parameter $\mathbf{n_k}$ (Number of operational CFLs) value of data applied for the purpose of calculating expected emission reductions in section B.5 as a value to be filled in each CPA-DD by the CME, similarly for the parameter $\mathbf{n_i}$ (Number of incandescent bulbs collected), the Value of data applied for the purpose of calculating expected emission reductions in section B.5 has been revised as to be filled in by the implementer in the SSC-CPA. Accordingly, parameters $\mathbf{p_i}$ and $\mathbf{p_k}$ revision has been done by the CME with insertion of the data as per the each SSC-CPA by the CME. The CME proposes to change the section E.7.2 on the monitoring plan based on the above revisions.

In the Generic-CPA-DD document, the CME proposed the changes in section B.5 and B.6 as per the changes in the PoA-DD document for the parameters $\mathbf{n_{PSG}}$ as number of households with value of 220 for the entire POA population as a whole under the project boundary of Mexico undertaken by applying 95/10 confidence/precision for the sample size calculation as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs and $\mathbf{n_{PCCG}}$ of 97 as Total sample size used for checking to ensure ongoing operation of project devices each block of CPA/s included in the POA. The Annex 7 and Annex 8 have been removed in the revised monitoring plan and the revised Annex 7 is the Annex 7 - CUIDEMOS Mexico_Sampling Plan RMP representing the new Sampling Plan of the POA[/5/].

The proposed revision of the monitoring plan ensures that the level of accuracy and completeness in the monitoring and verification process is not reduced as a result of the revisions (details below).

In accordance with the guidance and methodological choice mentioned the monitoring plan of the registered PoA DD (version 06; dated 17/02/2009)[/6/] stated the monitoring of following parameters in E.6.3 –

1. Estimated number of project activity devices to be distributed by the CPA coordinator (L_k)
2. Total sample size used for monitoring utilisation hours/electricity consumption of CFLs. (n_{PSG})
3. Total sample size of CFLs used for checking to ensure ongoing operation of project devices (n_{PCCG})
4. Emissions factor for electricity displaced from the grid relevant to the project boundary. (EF)
5. Transmission and distribution losses for electricity displaced from the grid relevant to the project boundary (TD)
6. Baseline Penetration Factor, proportion of lighting sockets in low-income households targeted by the PoA with CFLs already installed. (BP)

To improve the transparency and completeness of monitoring procedure and consistency of the applied Monitoring Methodology, the following monitoring parameters have been revised/ included in section E.6.2 of the registered PoA- DD:

Parameters fixed ex-ante as per the revised monitoring plan:

Sr. No	Parameter	Type of Parameter	Changes as per Registered POA-DD	Level of Accuracy and Completeness due to Revision
1.	Estimated number of project activity devices to be distributed by the CPA coordinator (L_k)	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	No Change	Not Applicable
2.	Total sample size used for monitoring utilisation hours/electricity consumption of CFLs. (n_{PSG})	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	Revised	As per requirements specified by SSC_CLA_570[12], the CME proposed to change the number of samples of CFLs for the total sample used from 240 CFLs to 880 CFLs or in other words 220 Households with 4 CFLs in each household for monitoring the hours/electricity consumptions of CFLs to ensure that the level of Confidence is 95% and precision level of 10 is maintained. These samples would be randomly selected undertaken by applying 95/10 confidence/precision for the sample size calculation from the entire CPAs under the POA as per footnote 13 of paragraph 19 of EB65 Annex 2. Thus this parameter change enhances the level of accuracy of the parameter. This would be applicable for the entire PoA and would cover the sampling for all the CPAs involved in the PoA as per the provisions of the EB guidelines on Sampling and Survey version 01. Also, the CME may choose to increase or decrease the sample size for subsequent monitoring periods for each block of CPA/s to meet the required confidence/precision level. This was found to be appropriate in terms of meeting the requirement of

				95/10 confidence/precision level. It can be noted that with the more samples being taken there would be more accuracy in estimating the 95/10 confidence/ precision as well. Also at times, the number of samples may be lowered to meet the requirement of the required confidence/precision level and considering the completeness of sample within the 880 CFLs monitoring, this was also found to be appropriate and hence accepted. With 880 CFLs, the requirement of sampling would meet the requirements as per the General Guideline of Sampling and Survey version 01 hence accepted. Please refer further justification on accuracy level in the paragraphs after the table.
3.	Total sample size of CFLs used for checking to ensure ongoing operation of project devices (n_{PCCG})	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	Revised	As per requirements specified by SSC_CLA_570[12], the CME propose to change the number of samples of CFLs for the checking to ensure ongoing operation of project devices from 240 CFLs to 388 CFL or in other words 97 Households with 4 CFLs in sample space for the checking to ensure ongoing operation of project devices block of CPA/s. CME proposed to apply to have a different survey using 97 households for each block of CPAs based upon a 3 month range of dates for the commencement of the CPAs. Also, the CME may choose to increase or decrease the sample size for subsequent monitoring periods for each block of CPA/s to meet the required confidence/precision level. This was found to be appropriate in terms of meeting the requirement of 95/10 confidence/precision level. It can be noted that with

				the more samples being taken there would be more accuracy in estimating the 95/10 confidence/ precision as well. Also at times, the number of samples may be lowered to meet the requirement of the required confidence/precision level and considering the completeness of sample within the 388 CFLs monitoring, this was also found to be appropriate and hence accepted. Thus this parameter change enhances the level of accuracy of the parameter. With the revision the requirement of sampling would meet the requirements as per the General Guideline of Sampling and Survey version 01[13] hence accepted. Please refer further justification on accuracy level in the paragraphs after the table.
4.	Emissions factor for electricity displaced from the grid relevant to the project boundary. (EF)	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	No Change	Not Applicable
5.	Transmission and distribution losses for electricity displaced from the grid relevant to the project boundary (TD)	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	No Change	Not Applicable
6.	Baseline Penetration Factor, proportion of lighting sockets in low-income households targeted by the PoA with CFLs already installed. (BP)	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	No Change	Not Applicable

For parameter #2, with reference to SSC_CLA_570 it was found to be justifiable in terms of the number of samples considered for monitoring the CFLs in terms of the energy savings and hours of operation and in terms of number of CFLs in operating condition. Further it has been enunciated at this revision from the CME's end based on the clarification received from the SSC WG with the SSC_CLA_570 and further with the provisions of the General Guideline of Sample and Survey version 01 that the sample size would be fixed out at the PoA level rather than at each CPA level and hence, with this revision, the sample of 220 Households will be representative of the entire population included under the PoA. These 220 households would be the total sample size used for monitoring utilization hours/electricity consumption of CFLs of the entire population of representative under the POA. This was found to be in line with the requirements of the General Guideline of Sample and Survey version 01 and hence the same was accepted as they were meeting the requirement of the 95/10 confidence/precision level.

For the parameter nPSG, the proposed sample size of 220households i.e. 880CFLs is representative of the entire population of the POA within the project boundary of Mexico. These samples would be selected randomly undertaken by applying 95/10 confidence/precision for the sample size calculation from the entire CPAs included in the PoA in line with footnote 13 of paragraph 19 of EB65 Annex 2. The revised approach of sampling for this parameter was checked and found to be correctly calculated based on independent sample analysis by University of Melbourne Report no. 854 dated 06/03/2012 and was checked in line with the requirement of EB 65 Annex 2 para 20-26 and found to be appropriately considered. It can be deemed that the approach of sampling mechanism as in the registered monitoring plan and the revised monitoring plan are two different approach of sampling.. The CME has utilized Puebla's data to estimate the sample size which will further enhance the accuracy. Thus the revised approach of sampling was based in line with the paragraph 19 of the Standard for Sampling and Survey (EB 65 Annex 2) and a completely different approach in terms of sampling. Also this was found to be in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. Further, it was evaluated that what would be the effect on level of accuracy of sampling due to this proposed change. It was demonstrated by the CME that due to the lower variance over the entire population of the POA within the project boundary of Mexico as per the University of Melbourne Report no. 854 dated 06/03/2012, the sample size chosen was representative of the larger population and since population do not have any effect on the sample size thus the sample size proposed did not have any effect on the level of accuracy of monitoring compared to the registered monitoring plan. The explanation provided by the CME was checked with the information on the University Of Melbourne Report No. 854 dated 06/03/2012 and also the formulae used for estimation of the sample size and it was found to be independent of the population size. It can be noted that all the required parameters of mean, standard deviation and confidence interval of 90% as per the requirement of the Standard for Sampling and Survey (EB 65 Annex 2) for small scale project was found to have been met and thus it can be concluded that due to this proposed revision in the parameter nPSG there would be no effect on the accuracy level and completeness of monitoring. Thus, the same was found to be in line with the requirement of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

Similarly for parameter #3, it has been enunciated at this revision from the CME's end as per requirements specified by SSC_CLA_570, the CME has increased the sample space for the checking to ensure ongoing operation of project devices from 240 CFLs to 97 Households with 4 CFLs in sample space for the checking to ensure ongoing operation of project devices. CME proposed to apply to have a different survey using 97 households for each group of CPAs based upon a 3 month range of dates for the commencement of the CPAs. This was found to be in line with the requirements of the General Guideline of Sample and Survey version 01 and hence the same was accepted as they were meeting the requirement of the 95/10 confidence/precision level.

For the parameter nPCCG, the proposed sample size of 97households i.e. 388CFLs is representative of cross check sample for each block of CPA/s. The revised approach of sampling for this parameter was checked and found to be correctly calculated based on independent sample analysis by University of Melbourne Report no. 854 dated 06/03/2012 and was checked in line with the requirement of EB 65 Annex 2 para 20-26 and found to be appropriately considered. It can be deemed that the approach of sampling mechanism as in the registered monitoring plan and the revised monitoring plan are two different approach of sampling. Thus keeping in line with the requirement of para 9 of AMS II.C version 09, the CME has proposed to undertake the cross check sample of 97 households for each block of CPA/s being included in the PoA. Thus the revised approach of sampling was based in line with the paragraph 19 of the Standard for Sampling and Survey (EB 65 Annex 2) and a completely different approach in terms of sampling. Also this was found to be in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. Further, it was evaluated that what would be the effect on level of accuracy of sampling due to this proposed change. It was demonstrated by the CME that due to the lower variance over the entire population as per the University of Melbourne Report no. 854 dated 06/03/2012, the sample size chosen was representative of the larger population and since population do not have any effect on the sample size thus the sample size proposed did not have any effect on the level of accuracy of monitoring compared to the registered monitoring plan. The explanation provided by the CME was checked with the information on the University of Melbourne Report no. 854 dated 06/03/2012 and also the formulae used for estimation of the sample size and it was found to be independent of the population size. It can be noted that all the required parameters of mean, standard deviation and precision level of 90% as per the requirement of the Standard for Sampling and Survey (EB 65 Annex 2) for small scale project was found have been met and thus it can be concluded that due to this proposed revision in the parameter

nPCCG there would be no effect on the accuracy level and completeness of monitoring. Thus, the same was found to be in line with the requirement of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

The justification provided by the CME was checked with the provisions of EB during the registration of the PoA 2535 and it was found that there was no Guideline or Standard available at the time of validation of the programme of activity. Further it was checked that the CME had adopted the error margin on parameters nPSG and nPCCG as 6.5% in the initial monitoring plan as compared to the error margin on parameters nPSG and nPCCG as 10% in the proposed revised monitoring plan. The two approaches of sampling as demonstrated in the earlier sections are different and as such the provisions by the CME to keep 10% error margin on the parameters would meet the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the " Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. In terms of level of accuracy, since the two approach of sampling when the registered monitoring plan is compared with the proposed revised monitoring plan, it can be deemed that there would be no effect on the level of accuracy in sampling with error being 6.5% in the registered monitoring plan and error being 10% in the proposed monitoring plan. For error margin, it can also be noted that due to the fact that there was no guideline/standard available the CME had considered a conservative 6.5% during the registration of the project and now during the revision of the monitoring plan proposing 10% complying with the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the " Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0). With the error margin of 10% in the proposed monitoring plan the CME also meets the requirement of 95% confidence level and thus it can be concluded that with the proposed change of approach in sampling for parameter nPSG and nPCCG, the change of error margin from 6.5% to 10% will not have effect on accuracy of consideration of the samples and thus in line with the requirements of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

The CME proposes to remove the "Given that each SSC-CPA included in the PoA will be identified by geographical location, it is possible to unambiguously identify CPAs or CDM project activities potentially operating in the same area. The geographical boundary of each SSC-CPA is determined by the location of households where CFLs are installed. Each SSC-CPA will limit participation to households belonging to a certain geographical region (e.g. the State of Puebla)" in the procedure to avoid double counting considering that it was more specific to geographical location and the segregation of such households in a region is not correct. Rather households would be identified based on the submission of their electricity bills during the exchange program for each CPA. This procedure was already a part of the monitoring plan hence accepted as effective and thus accepted.

Also the CME revised the monitoring plan with PoA record keeping procedures to prevent double counting across CPAs. The data-set of households participating in corresponding to each CPA was mutually exclusive of the data-set of another CPA under the PoA. The list of households that would participate in the exchange of light bulbs for each CPA cannot contain any duplicate entries. These duplication rule applies within each CPA (ie a household cannot participate more than once during each CPA), and between CPAs (ie households cannot participate in more than one CPA.

'The PSG households will be used for all CPAs. Therefore PSG households are not allocated to a specific CPA. The PCCG households will be for each block of CPAs. The statistical expert has defined the method for choosing households for both the PSG and PCCG. This is described in detail Annex 7. This approach was found to be more appropriate in reducing double counting and thus accepted.
The CME was requested to submit a revised monitoring plan which incorporates information that the samples for parameter nPSG will be randomly selected and selected across all combined CPAs under the PoA in accordance with the footnote 13 of paragraph 19 of the EB65 Annex 2 which indicates that a single sampling plan can be only undertaken by combining the population of all CPAs together.

The CME also generalized the Independent check of scrapped incandescent bulbs. The managing companies involved were specifically mentioned in the PoA DD earlier and now the CME would have the choice to select the independent survey company. This was generic in terms of identifying the agency of

validating the scrapping of the bulbs and hence considered to be having no impact on the monitoring plan and thus accepted. The CME also included the provision for the independent verifier to conduct at least one physical spot check of the then be present while the scrapping of incandescent bulbs is undertaken to ensure that no leakage occurs. This was found to be essentially required during the scrapping of the bulbs and hence accepted.

The CME proposed to remove the following with regard to the monitoring equipment "In addition, the metering devices used by the project coordinator can simultaneously measure total electricity consumption of the CFLs. Where possible this measure will be used to determine the project energy consumption for each monitoring period" and this was found to have no impact on the monitoring as the new monitoring device would be more effective in terms of accuracy of measurement. Due to the change of the measuring device, there would be no requirement of this measurement.

CME was requested to clarify how the request for revision in monitoring plan of the POA-DD is in line with the SSC CLA 570. Further post clarification request by the EB, CME was requested to further clarify how the level of accuracy and completeness in the monitoring and verification process is not reduced given that:

1. (a) for parameter nPSG, the sampling size is changed from 240 CFLs for each CPA to 220 households (or up to 880 CFLs for the entire PoA);

(b) for parameter nPCCG, the sampling size is changed from 240 CFLs for each CPA to 97 households (or up to 388 CFLs for each block of CPAs);

(c) the registered monitoring plan prescribes an error margin of 6.5% for both parameter nPSG and nPCCG, while the revised monitoring plan proposes an error margin of 10%;

(d) the registered monitoring plan (PoA-DD page 41) where possible will use the total electricity consumption that is measured by the metering devices, however the revision of the monitoring plan in the PoA-DD removes this provision. Furthermore, the DOE needs to further clarify as this provision remains in the proposed revision of monitoring plan in the CPA-DD-Generic and CPA-DD-specific.

2. The revised monitoring plan of the PoA-DD and CPA-DD-generic mentioned that 97 households would be survey. It was not clear whether this be considered for each CPA or not.

3. CME was requested to further clarify how the proposed approach to take when the required precision of 10% of a 95% confidence level was not met is appropriate (to use the lower value of the interval instead of mean for the emission reduction calculation), given that the EB50 Annex 30 paragraph 12 states " if the estimates from the actual samples fail to achieve the target minimum levels of precision, project participants shall perform additional data collection that is a supplemental or new sample" .

4. The document Annex 7 Cuidemos Mexico PoA - Sampling Plan on Section 4 mentions " The initial sampling frame will be for all existing CPAs at the time of sampling, which will be a subset of the entire project targeted over the course of the PoA. However, all future CPAs will be based around similar distribution points, target the same population and will have similar usage patterns. Therefore there is no need to conduct additional sampling for future CPAs." . The CME is requested to further clarify whether or not sampling will be carried out once for the entire lifetime of the PoA. Furthermore, if not, the frequency of the sampling should be determined and described in the revised monitoring plan. If yes, how it is in line with AMS-II.C version 09 which requires the monitoring of either the " power" and " operating hours" or the " energy use" of the devices (para 8).

Thus, **CL #01** was raised.

In response CME clarified that SSC CLA 570 relates to the clarification for cases where the 90/10 confidence/precision is not met. The request for revision in monitoring plan in CPA1 is in line with the SSC CLA 570. The reasons are stated below:

In response to SSC CLA 570, the SSC WG had suggested to determine the sample size at the planning stage by taking a range of possibly relevant values for the standard deviation and target means, including some extra samples to ensure that the required precision is always met.

In the first monitoring period (01/12/2009 to 30/11/2010) of CPA 2525-0001 (CUIDEMOS Mexico (Campana De Uso Intelegente De Energia Mexico) – Puebla), the precision of the average operating hours of the CFLs did not meet the 90/10 confidence/precision criteria. In order to ensure that all CPAs included in the PoA meet the desired precision level in the subsequent monitoring periods, the CME opted to revise the sample size based on the actual data (such as standard deviation and mean) obtained from the first monitoring period of CPA 1. The CME has also incorporated extra samples in the final sample size to allow potential monitoring equipment failure and ensure that the required precision is met. This was checked in the RMP PoA-DD and CPA-DD and found to be consistent hence accepted. The CME had revised the number of households for the sampling as 220 as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs and 97 as Total sample size used for cross checking for each CPA or block of CPAs to ensure ongoing operation of project devices and it would have provisions as per 95% confidence level in line with the requirement of General Guideline of Sampling and Survey version 01 and hence accepted. Also precision level of 10 is maintained as the sample size has been taken at large from the existing monitoring plan.

Further, the CME clarified that for parameter nPSG, the estimated randomly selected undertaken by applying 95/10 confidence/precision for the sample size calculation from the entire CPAs included in the PoA in line with footnote 13 of paragraph 19 of EB65 Annex 2 sample size 220 households (or up to 880 CFLs for entire PoA) would not reduce the accuracy and completeness in the monitoring and verification process because of the following reasons:

- The estimated sample size can be considered conservative as it allowed for the unexpected increase in the variability between households. It was worth noting that the amount of variation affects the sample size required as stated in paragraph 8b of the “Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)”. As outlined in section 3.1 of Annex 7 Cuidemos Mexico PoA - Sampling Plan, to allow for potential higher variance at the national level, increased contingency is built into the recommended sample size through an inflated standard deviation. Standard Deviation of 1.977 was estimated for the CUIDEMOS Mexico – CPA 1, Puebla, which was inflated to 2.33 to allow for potential higher variance at the national level and therefore achieve the required precision.

These samples would be randomly selected undertaken by applying 95/10 confidence/precision for the sample size calculation from the entire population of CPAs together under the POA as per footnote 13 of paragraph 19 of the EB65 Annex 2 which indicates that a single sampling plan can be only undertaken by combining the population of all CPAs together. This was checked and found to be consistently mentioned in the revised monitoring plan and hence accepted.

- It was noted that the larger population size doesn’t require larger sample. As long as the existing sample was representative of the entire population under all the CPAs included in the PoA, the sample size depends on the variability in the quantity being measured, not the population size. This was evident from the formulae used in the sample size calculations in section 3.1 of Annex 7 Cuidemos Mexico PoA - Sampling Plan, as sample size calculation do not involve the population size, only the mean, standard deviation and the precision are used.

For parameter nPCCG, the estimated sample size 97 households (or up to 388 CFLs for each block of CPA/s) would not reduce the accuracy and completeness in the monitoring and verification process. The desired precision of 10% for a 95% confidence interval is the basis for estimation of the sample size for PCCG group. As discussed above, the sample size is independent of population size that depends on the standard deviation for number of CFLs operating each households and average number of CFLs operating in each household. This is evident from the formulae used in the PCCG sample size calculations in section 3.2 of Annex 7 Cuidemos Mexico PoA - Sampling Plan. Further, it should be noted that the 97 households is the minimum sample size for PCCG and the CME may increase the sample size if required.

Further, The CME had prescribed an error margin of 6.5% for both parameter nPSG and nPCCG in the registered monitoring plan as there were no standard for sampling and survey for CDM project activities and programme of activities at the time when the PoA was registered. In the revised monitoring plan, the CME has applied an error margin of 10% to comply with the Sampling Requirements for PoAs (paragraph 19) of

Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (Version 02.0).

As discussed above, the amount of variation affects the sample size. The larger the variation associated with the parameter of interest the larger the sample size required for the same level of confidence and precision. In the revised monitoring plan, the CME has estimated the sample size based on the actual data collected from CUIDEMOS Mexico – CPA 1 that will further ensure that the sample selected will meet the required reliability criteria. When the registered monitoring plan was developed there was no such actual data (e.g. variability or standard deviation) available for sample size calculation.

For the parameter nPSG, the proposed sample size of 220households i.e. 880CFLs is representative of the entire population of the POA within the project boundary of Mexico. These samples will be randomly selected undertaken by applying 95/10 confidence/precision for the sample size calculation from the entire population of the CPAs included in the PoA as per footnote 13 of paragraph 19 of EB65 Annex 2. The revised approach of sampling for this parameter was checked and found to be correctly calculated based on independent sample analysis by University of Melbourne Report no. 854 dated 06/03/2012 and was checked in line with the requirement of EB 65 Annex 2 para 20-26 and found to be appropriately considered. It can be deemed that the approach of sampling mechanism as in the registered monitoring plan and the revised monitoring plan are two different approach of sampling. All future CPAs will be based around similar distribution points, target the same population and will have similar usage patterns therefore there is no need to do additional sampling for the future CPAs. The CME has utilized Puebla's data to estimate the sample size which will further enhance the accuracy. Thus the revised approach of sampling was based in line with the paragraph 19 of the Standard for Sampling and Survey (EB 65 Annex 2) and a completely different approach in terms of sampling. Also this was found to be in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. Further, it was evaluated that what would be the effect on level of accuracy of sampling due to this proposed change. It was demonstrated by the CME that due to the lower variance over the entire population as per the University of Melbourne Report no. 854 dated 06/03/2012, the sample size chosen was representative of the larger population and since population do not have any effect on the sample size thus the sample size proposed did not have any effect on the level of accuracy of monitoring compared to the registered monitoring plan. The explanation provided by the CME was checked with the information on the University of Melbourne Report no. 854 dated 06/03/2012 and also the formulae used for estimation of the sample size and it was found to be independent of the population size. It can be noted that all the required parameters of mean, standard deviation and precision level of 90% as per the requirement of the Standard for Sampling and Survey (EB 65 Annex 2) for small scale project was found to have been met and thus it can be concluded that due to this proposed revision in the parameter nPSG there would be no effect on the accuracy level and completeness of monitoring. Thus, the same was found to be in line with the requirement of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

For the parameter nPCCG, the proposed sample size of 97households i.e. 388CFLs is representative of cross check sample for each block of CPA/s. The revised approach of sampling for this parameter was checked and found to be correctly calculated based on independent sample analysis by University of Melbourne Report no. 854 dated 06/03/2012 and was checked in line with the requirement of EB 65 Annex 2 para 20-26 and found to be appropriately considered. It can be deemed that the approach of sampling mechanism as in the registered monitoring plan and the revised monitoring plan are two different approach of sampling. Thus keeping in line with the requirement of paragraphs 9 of AMS II.C version 09, the CME has proposed to undertake the cross check sample of 97 households for each block of CPAs being included in the PoA. Thus the revised approach of sampling was based in line with the paragraph 19 of the Standard for Sampling and Survey (EB 65 Annex 2) and a completely different approach in terms of sampling. Also this was found to be in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. Further, it was evaluated that what would be the effect on level of accuracy of sampling due to this proposed change. It was demonstrated by the CME that due to the lower variance over the entire population as per the University of Melbourne Report no. 854 dated 06/03/2012, the sample size chosen was representative of the larger population and since population do not have any effect on the sample size thus the sample size proposed did not have any effect on the level of accuracy of monitoring compared to the registered monitoring plan. The explanation provided by the CME was checked with the information on the University of Melbourne Report no. 854 dated 06/03/2012 and also the formulae used for estimation of the sample size and it was found to be independent of the population size. It can be noted that all the required parameters of mean, standard deviation and confidence level of 90% as per the requirement of the Standard for Sampling and Survey (EB 65 Annex 2) for small scale project was found to have been met and thus it can be concluded that due to this proposed revision in the parameter

nPCCG there would be no effect on the accuracy level and completeness of monitoring. Thus, the same was found to be in line with the requirement of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

The justification provided by the CME was checked with the provisions of EB during the registration of the PoA 2535 and it was found that there was no Guideline or Standard available at the time of validation of the programme of activity. Further it was checked that the CME had adopted the error margin on parameters nPSG and nPCCG as 6.5% in the initial monitoring plan as compared to the error margin on parameters nPSG and nPCCG as 10% in the proposed revised monitoring plan. The two approaches of sampling as demonstrated in the earlier sections are different and as such the provisions by the CME to keep 10% error margin on the parameters would meet the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. In terms of level of accuracy, since the two approach of sampling when the registered monitoring plan is compared with the proposed revised monitoring plan, it can be deemed that the there would no effect on the level of accuracy in sampling with error being 6.5% in the registered monitoring plan and error being 10% in the proposed monitoring plan. It can also be noted that due to no guideline/standard available the CME had considered a conservative 6.5% during the registration of the project and now during the revision of the monitoring plan is complying with the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0). With the error margin of 10% in the proposed monitoring plan the CME also meets the requirement of 95% confidence level and thus it can be concluded that with the proposed change of approach in sampling for parameter nPSG and nPCCG, the change of error margin from 6.5% to 10% will not have effect on accuracy of consideration of the samples and thus in line with the requirements of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

The CME clarified that the 97 households in the parameter nPCCG would be applicable for each block of CPA/s and corrected the same in the PoA-DD RMP and Generic CPA-DD RMP and this was checked and found to be consistent in the Annex 7 document hence accepted.

Further, The POA-DD RMP version 02 and Generic CPA-DD RMP version 02 were checked and the provision of the Monitoring Use of Project Devices was found to be kept as it was in the registered monitoring plan with the provision of such metering at the PoA level which was earlier mentioned at the CPA level. It was found to be more appropriate in terms of the revised monitoring plan and was also checked and found to be in line with the CPA-Generic document and CPA-specific document and hence accepted.

The CME clarified that the provision of the use the lower value of the interval instead of mean for the emission reduction calculation was based on the experience of CPA1 verification in which a request of deviation has been proposed as the sampling of 240 was found to be incomplete and not meeting the 95/10 precision/confidence level. However, since the deviation was permanent the CME proposes to revise the monitoring plan of the project and consider permanent way out for such situation where the 95/10 precision/confidence level is not met. The CME clarified that in the revised PoA-DD RMP version 02, the provision for such scenario would be only to adopt more samples as per the requirement of EB 50 Annex 30 paragraph 12 and it was found to be appropriate and in line with the requirements of the provisions of EB and thus accepted.

3.) The provisions of the sampling in terms of the parameter nPSG (220 households, 880CFLs for the entire POA) were clarified by the CME to be once in terms of sample identification for the entire PoA and continuous monitoring of the samples throughout the life time of the PoA for 28years within the project boundary of Mexico state only as per the provisions of the registered PoA-DD. These samples would be selected randomly undertaken by applying 95/10 confidence/precision for the sample size calculation from all CPAs included in the PoA together in line with footnote 13 of paragraph 19 of EB65 Annex 2. For all the samples under the parameter nPSG, in the revised monitoring plan the CME clarified that monitoring equipment shall be installed which would be monitoring the operating hours of the sample. Further for the parameter nPCCG, which is the cross check parameter, for every inclusion of CPA or block of CPAs, the CME would undertake random sampling of minimum 97 households which would be on an annual basis and can be random for each year.

The provisions in the revised monitoring plan were checked with the provisions in the registered monitoring plan in terms of the applicability of AMS II.C version 09 paragraph 8. In the registered monitoring plan as per the provisions of para 8 of AMS II.C version 09, the CME was undertaking provision of 240 monitoring

devices with the 240 CLFs of the parameter nPSG to monitor the hours of operation and based on the rating of the CFLs, the power was recorded. This was as per the requirement of AMS II.C version 09 para 8. In the proposed revised monitoring plan, the CME proposes to undertake the sampling of 220households (880CFLs) under parameter nPSG which would have monitoring equipments for measuring the operating hours and with rating of each CFL being available, the recording of the power of all the CFLs. This was also found to be in line with the requirement of AMS II.C version 09 para 8 and with the provision of change of the monitoring device as proposed by the CME as compared to the registered monitoring plan, the reliability of the data received for the 220households would be more as thus rectifying the issue of incomplete data due to equipment failure as faced by the CME during the monitoring of the parameter in the CPA1, Puebla. Thus the requirement of AMS II.C version 09 para 8 was found to be appropriately being met.

Further the provisions of the sampling in terms of the parameter nPCCG (97 households, 388CFLs for each block of CPA/s) were clarified by the CME to be random for each monitoring period in terms of sample identification for the CPA or block of CPA and within the project boundary of Mexico state only as per the provisions of the registered PoA-DD. For all the samples under the parameter nPCCG, The provisions in the revised monitoring plan were checked with the provisions in the registered monitoring plan in terms of the applicability of AMS II.C version 09 paragraph 8. In the registered monitoring plan as per the provisions of para 9 of AMS II.C version 09, the CME was undertaking provision of 240 cross check samples under the parameter nPCCG. This was found to be as per the requirement of AMS II.C version 09 para 8. In the proposed revised monitoring plan, the CME proposes to undertake the sampling of 97households (388CFLs for each block of CPA/w) under parameter nPCCG for cross checking purpose. This was also found to be in line with the requirement of AMS II.C version 09 para 9 and thus accepted

Thus **CL#01** was closed out.

In accordance with the guidance and methodological choice mentioned the monitoring plan of the registered POA-DD (version 06; dated 17/02/2009)[6] stated the monitoring of following parameters in E.7 –

1. Number of operational CFLs (n_k)
2. Number of incandescent bulbs collected (n_i)
3. The power of the incandescent bulbs “i” replaced. In the case of a retrofit programme, pi is the weighted average of the devices replaced. (p_i)
4. The weighted average power of the CFLs “k” distributed (p_k)
5. The average annual operating hours of CFLs “k” distributed. (o_k)
6. The coordinating entity will work with government and non-government stakeholders to assist in the establishment of a national CFL collection and recycling scheme.(CFL collection and recycling scheme)

To improve the transparency and completeness of monitoring procedure and consistency of the applied Monitoring Methodology, the following monitoring parameters have been revised/ included in section E.7.1 of registered POA-DD revised. The description of measurement method and procedure to be applied, QA/QC procedure to be applied has been mentioned completely for each parameter.

Parameters to be monitored as per the revised monitoring plan in PoA-DD:

Sr. No	Parameter	Type of Parameter	Change as compared to Registered POA-DD	Level of Accuracy and Completeness due to Revision
1.	Number of operational CFLs (n_k)	Fixed at the time of implementation by CME	Revised from a fixed number of 1000000 CFLs	This would be more accurate as the exact number of CFLs distributed once the implementation is done would be reflected
2.	Number of incandescent bulbs collected (n_i)	Fixed at the time of	Revised from a fixed number of	This would be more accurate as the exact

		implementation by CME	1000000 Incandescent bulbs	number of CFLs distributed once the implementation is done would be reflected
3.	The power of the incandescent bulbs "i" replaced. In the case of a retrofit programme, p_i is the weighted average of the devices replaced. (p_i)	Measured	Revised to be filled in CPA-DD by the implementer	This would more accurate as for each component of the programme implementation the average wattage would differ
4.	The weighted average power of the CFLs "k" distributed (p_k)	Measured	Revised to be filled in CPA-DD by the implementer	This would more accurate as for each component of the programme implementation the average wattage would differ
5.	The average annual operating hours of CFLs "k" distributed. (o_k)	Measured	No Change	Not Applicable
6.	The coordinating entity will work with government and non-government stakeholders to assist in the establishment of a national CFL collection and recycling scheme.(CFL collection and recycling scheme)	Measured	No Change	Not Applicable

In the section E.7.2 the CME has revised the Description of the monitoring plan for a SSC-CPA with removal of specific agency name while monitoring the disposal of the incandescent bulbs in the PoA-DD. This is accepted considering that all CPAs might not have same designated agency for evaluating the distribution process. Since the sample group has been generalized as per the provisions as described above, the PoA-DD has been revised accordingly to update all the sections in E.7.2 for clarity on the sampling on overall basis rather than being only on the individual CPAs.

In accordance with the guidance and methodological choice mentioned the monitoring plan of the registered PoA CPA DD (version 05; dated 22/07/2009)[7] stated the monitoring of following parameters in CPA-DD

Parameters to be monitored as per the revised monitoring plan in Generic CPA-DD:

Sr. No	Parameter	Type of Parameter	Changes as per Registered POA-DD	Level of Accuracy and Completeness due to Revision
1.	Estimated number of project activity devices to be distributed by the CPA coordinator (L_k)	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	Revised as To be filled by the implementer in the SSC-CPA	Accuracy level is enhanced as for each implementation at CPA level there would be a exact reporting of the devices.
2.	Total sample size used for monitoring utilisation hours/electricity consumption of	Data and parameters that are to be	Revised to be determined	As per requirements specified by SSC_CLA_570, the CME has change the sample space

	CFLs. (nPSG)	reported in CDM-SSC-CPA-DD form	at the PoA level	for the total sample randomly used from 240 CFLs to 220 Households with 4 CFLs in each household for monitoring the hours/electricity consumptions of CFLs to ensure that the level of Confidence is 95% and precision level of 10 is maintained. Thus this parameter change has no effect on the level of accuracy of the parameter. These samples would be selected randomly undertaken by applying 95/10 confidence/precision for the sample size calculation for the entire PoA from all CPAs together as per the footnote 13 of paragraph 19 of EB65 Annex 2. With 880 CFLs, the requirement of sampling would meet the requirements as per the General Guideline of Sampling and Survey version 01 hence accepted. Please refer CL#01 for further justification on the accuracy level.
3.	Total sample size of CFLs used for checking to ensure ongoing operation of project devices (nPCCG)	Data and parameters that are to be reported in CDM-SSC-CPA-DD form	Revised as Determined by project participants as per the procedure outlined in Annex	As per requirements specified by SSC_CLA_570, the CME has change the sample space for the checking to ensure ongoing operation of project devices from 240 CFLs to 97 Households with 4 CFLs in each household for monitoring the hours/electricity consumptions of CFLs to ensure that the level of Confidence is 95% and precision level of 10 is maintained for each block of CPA/s. Thus this parameter change has no effect on the level of accuracy of the parameter. With the revision the requirement of sampling would meet the requirements as per the General Guideline of Sampling and Survey version 01 hence accepted. Please refer CL#01 for further justification on the accuracy level.
4.	Emissions factor for electricity displaced from the grid relevant to	Data and parameters	No Change	Not Applicable

	the project boundary. (EF)	that are to be reported in CDM-SSC-CPA-DD form		

According to the change above, the section B.6 has been revised which has been checked and found to be consistent hence accepted.

The conformance check of the revised Generic CPA-DD was done with the revised PoA-DD in terms of Monitoring Aspects and were found to be in line and changed as per the detailed changes in the PoA-DD hence accepted.

There would be no change in the algorithm of calculation of emission reduction by the revision of monitoring plan.

Changes to Annex 8 during revision of monitoring plan (Revised as Annex 7)

The document was earlier ANNEX 8 CUIDEMOS MEXICO PoA - SAMPLE GROUP CALCULATION, SELECTION AND MAINTENANCE and now being revised as ANNEX 7 CUIDEMOS MEXICO PoA – SAMPLING PLAN mainly to bring in transparency in the approach of Sampling as per the General Guideline of Sampling and Survey version 01 and further with Standard for Sampling and Surveys for CDM Project Activities and Programme of activities (Version 02.0). This has been done based on the sample plan provided for the project by University of Melbourne Report no. 854 dated 06/03/2012[15]. Section 3.4 of the report has been checked and found to be consistent with the requirement of UN guideline for sampling. The document clearly indicates in line with the SSC_CLA_570, the Sampling Design where the Mean value of the operating hours of CFLs for each monitoring period during the crediting period with a 95/10 Confidence /Precision and the Proportion of operating CFLs for each monitoring period during the crediting period with a 95/10 confidence / precision in compliance with " Standard for Sampling and Surveys for CDM Project Activities and Programme of activities (Version 02.0) would be considered.

In fixing the Target Population and Sampling Frame CME would chose households that can participate in the PoA within the geographic boundary of Mexico and complies with requirements of the project (e.g. exchanged up to 4 incandescent bulbs at a project distribution point). A list of households that participates in the PoA will be used as a sampling frame. Households will be used as the unit for average operating hours calculations. This would involve the averaging of CFLs within households, which ensures that each household contributes equally to the overall mean, even in cases when there are only data available from at least two CFLs for a given household. In the earlier case, For each CPA of 1 million CFLs distributed, a total sample size of 240 CFLs was to be monitored in order to be statistically representative with an error margin of +/- 6.5% at 95% confidence level as per the provisions of Annex 8 which is revised as 10% error margin at 95% confidence level as per the revised monitoring plan. The justification provided by the CME was checked with the provisions of EB during the registration of the PoA 2535 and it was found that there was no Guideline or Standard available at the time of validation of the programme of activity. Further it was checked that the CME had adopted the error margin on parameters nPSG and nPCCG as 6.5% in the initial monitoring plan as compared to the error margin on on parameters nPSG and nPCCG as 10% in the proposed revised monitoring plan. The two approaches of sampling as demonstrated in the earlier sections are different and as such the provisions by the CME to keep 10% error margin on the parameters would meet the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. In terms of level of accuracy, since the two approach of sampling when the registered monitoring plan is compared with the proposed revised monitoring plan, it can be deemed that there would no effect on the level of accuracy in sampling with error being 6.5% in the registered monitoring plan and error being 10% in the proposed monitoring plan. It can also be noted that due to no guideline/standard available the CME had considered a conservative 6.5% during the registration of the project and now during the revision of the monitoring plan is complying with the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0). With the error margin of 10% in the proposed monitoring plan the CME also meets the requirement of 95% precision level and thus it can be concluded that with the proposed change of approach in sampling for parameter nPSG and nPCCG, the change of error margin from 6.5% to

10% will not have effect on accuracy of consideration of the samples and thus in line with the requirements of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

In the Sampling Method, unlike the previous document Annex 8, in the revised Annex 7 document the Project Sample Group (PSG) and Project Cross Check Sample Group (PCCG) has been considered. This has been calculated based on the requirements of the Sampling Guidelines of UN. Similarly the Project Sample Group (PSG) will be established at the PoA level. The desired precision of 10% for a 95% confidence interval is the basis for selection of the sample size for a national sample. The purpose of establishing the PSG is to monitor a representative sample of all participating households in the PoA and will be as per the requirement of the sampling guidelines hence accepted.

A further 10% oversampling has been applied to account for monitoring metering failure or losses incurred in the data collection process, resulting in a total sample size of 220 households. Based on the monitoring results, the CME may choose to increase or decrease the initial sample size to meet the required precision. This would be assessed with reference to the desired precision of 10% for a 95% confidence interval. If additional households were found to be required they would be determined using the same stratified random sample approach. This has been found to be justifiable hence accepted.

Provision during failure to achieve desired level of precision for average operating hours has been included in the revised Annex 7 document. This has been done keeping the background of the issues faced during the verification of the CPA-1 for the period of 01/12/2009 to 30/11/2010. The CME proposes in line with EB 50 Annex 30 paragraph 12 that in case the situation arise the CME would monitor more samples. The CME clarified that the provision of the use the lower value of the interval instead of mean for the emission reduction calculation was based on the experience of CPA1 verification in which a request of deviation has been proposed as the sampling of 240 was found to be incomplete and not meeting the 95/10 precision/confidence level. However, since the deviation was permanent the CME proposes to revise the monitoring plan of the project and consider permanent way out for such situation where the 95/10 precision/confidence level is not met. The CME clarified that in the revised PoA-DD RMP version 02, the provision for such scenario would be only to adopt more samples as per the requirement of EB 50 Annex 30 paragraph 12 and it was found to be appropriate and in line with the requirements of the provisions of EB and thus accepted.

The CME through this revision also incorporated the effect of meter failure. During the time that the meter would not work or under repair, data will not be available. In this case, only days for in which there were meters functioning would be included in the calculation of the mean operating hours for each CFL. These will then be averaged across households to give an overall household average operating hours per CFL. However, in order to ensure all households included are statistically representative there ought to be a lower limit on the number of metered days acceptable for that CFL to be included.

For the PCCG survey(s), CPAs would be grouped according to distribution date. Each block of CPA/s may consist of one or more CPAs. Survey will be done for each block of CPA/s whether the block contains a single CPA or more. A separate sample will be taken for each of these blocks. Specifically, all CPAs where distribution occurred within a three-month period will be combined for the purposes of this estimation and a sample will be taken randomly from the set of all non-metered households in that block of CPA/s. If no group of CPA could be formed or a single CPA distribution occur in three months time then a separate PCCG survey will be carried out for that CPA. Sample size for the PCCG survey is calculated as per Annex 7.

The desired precision of 10% for a 95% confidence interval is the basis for selection of the sample size for PCCG group as per the requirement of SSC_CLA_570 and thus this is accepted. This has been discussed in detail above in section of parameter changes in PoA-DD

Changes in Monitoring Equipment

The monitoring equipment will record the operating hours and/or electricity consumption of CFLs belonging to the PSG group. Monitoring equipment will be spot checked to ensure ongoing functionality and accurate calibration. If irregularities are recorded with equipment, this will be flagged immediately by the monitoring system and corrective actions will be implemented to repair or re-calibrate metering equipment. Calibration of the equipment will be conducted by the CME at least once in three years or as required.

CME was to clarify how the new monitoring equipment can be considered as more effective in terms of accuracy and completeness of data as compared to the previous device. **CL #02** was raised.

CME clarified that the new monitoring equipment provide more accurate data and allows the CME to capture more complete set of data. The new monitoring equipment has the following advantages as compared to the Lean Radar (LR) device:

1. The LR device used home modem and internet connection for data transmission whereas the new monitoring equipment uses GPRS/GSM technology that transmits data wirelessly. As the LR equipment sends the data via the home modem and internet connection the device could go offline for various reasons (e.g. device being unplugged, faulty modem, households not paying their internet bill etc).

2. In the new monitoring equipment, each monitoring device independently transmits data whereas the LR monitoring device sends the data to a central receiver/coordinator, which then finally transmits the data. If a receiver/coordinator fails then all 4 monitoring devices will not send data.

3. When the light is shown as off for an extended period the new monitoring equipment is able to test whether that is due to the light being off or as a result of a faulty unit. This feature is not available in the LR device.

4. The new equipment measures the exact times that the light is turned on and off.

Based on the above justification provided by the CME, it was concluded that the equipment (Specifications checked as per revised monitoring plan) is based on the GPRS/GSM technology would be capable of capturing more effectively the ON/OFF of the CFLs than the Lean Radar and hence the equipment was found to be more effective in terms of accuracy and completeness of data as compared to previous device and hence accepted thus **CL #02** was closed.

The proposed revision of the monitoring plan is in accordance with the approved monitoring methodology applicable to the project activity (details below).

The approved methodology AMS II.C version 9 clause 7, 8 & 9 mentions

7. If the devices installed replace existing devices, the number and " power" of the replaced devices shall be recorded and monitored. (This shall be monitored while replacement is underway to avoid, e.g.. that 40W lamps are recorded as 100W lamps, greatly inflating the baseline)

8. Monitoring shall consist of monitoring either the " power" and " operating hours" or the " energy use" of the devices installed using an appropriate methodology. Possible methodologies include:

(a) Recording the " power" of the device installed (e.g., lamp or refrigerator) using nameplate data or bench tests of a sample of the units installed and metering a sample of the units installed for their operating hours using run time meters.

OR

(b) Metering the " energy use" of an appropriate sample of the devices installed. For technologies that represent fixed loads while operating, such as lamps, the sample can be small while for technologies that involve variable loads, such as air conditioners, the sample may need to be relatively large.

9. In either case, monitoring shall include annual checks of a sample of non-metered systems to ensure that they are still operating (other evidence of continuing operation, such as on-going rental/lease payments could be a substitute).

In accordance to the above methodological requirement, the CME has revised the monitoring plan by metering the following parameters which would cover up the requirement of the metering of project:

Sr. No	Parameter	Type of Parameter	Conformance with the Methodology
1.	Number of operational CFLs (n_k)	Fixed at the time of	Confirmed to be meeting the requirement of clause 7 of the

		implementation by CME	methodology
2.	Number of incandescent bulbs collected (n_i)	Fixed at the time of implementation by CME	Confirmed to be meeting the requirement of clause 7 of the methodology
3.	The power of the incandescent bulbs "i" replaced. In the case of a retrofit programme, pi is the weighted average of the devices replaced. (p_i)	Measured	Confirmed to be meeting the requirement of clause 7 of the methodology
4.	The weighted average power of the CFLs "k" distributed (p_k)	Measured	Confirmed to be meeting the requirement of clause 8 of the methodology
5.	The average annual operating hours of CFLs "k" distributed. (o_k)	Measured	Confirmed to be meeting the requirement of clause 8 of the methodology
6.	The coordinating entity will work with government and non-government stakeholders to assist in the establishment of a national CFL collection and recycling scheme.(CFL collection and recycling scheme)	Measured	Confirmed to be meeting the requirement of the methodology clause 9

The provisions of the sampling in terms of the parameter nPSG (220 households, 880CFLs for the entire POA) were clarified by the CME to be once in terms of sample identification for the entire PoA and continuous monitoring of the samples throughout the life time of the PoA for 28years within the project boundary of Mexico state only as per the provisions of the registered PoA-DD. For all the samples under the parameter nPSG, in the revised monitoring plan the CME clarified that monitoring equipment shall be installed which would be monitoring the operating hours of the sample. Further for the parameter nPCCG, which is the cross check parameter, for every inclusion of CPA or block of CPAs, the CME would undertake random sampling of minimum 97 households which would be on an annual basis and can be random for each year.
The provisions in the revised monitoring plan were checked with the provisions in the registered monitoring plan in terms of the applicability of AMS II.C version 09 paragraph 8. In the registered monitoring plan as per the provisions of para 8 of AMS II.C version 09, the CME was undertaking provision of 240 monitoring devices with the 240 CLFs of the parameter nPSG to monitor the hours of operation and based on the rating of the CFLs, the power was recorded. This was as per the requirement of AMS II.C version 09 para 8. In the proposed revised monitoring plan, the CME proposes to undertake the sampling of 220households (880CFLs) under parameter nPSG which would have monitoring equipments for measuring the operating hours and with rating of each CFL being available, the recording of the power of all the CFLs. This was also found to be in line with the requirement of AMS II.C version 09 para 8 and with the provision of change of the monitoring device as proposed by the CME as compared to the registered monitoring plan, the reliability of the data received for the 220households would be more as thus rectifying the issue of incomplete data due to equipment failure as faced by the CME during the monitoring of the parameter in the CPA1, Puebla. Thus the requirement of AMS II.C version 09 para 8 was found to be appropriately being met.

Further the provisions of the sampling in terms of the parameter nPCCG (97 households, 388CFLs for each block of CPA/s) were clarified by the CME to be random for each monitoring period in terms of sample identification each block of CPA/s and within the project boundary of Mexico state only as per the provisions of the registered PoA-DD. For all the samples under the parameter nPCCG, The provisions in the revised monitoring plan were checked with the provisions in the registered monitoring plan in terms of the applicability of AMS II.C version 09 paragraph 9. In the registered monitoring plan as per the provisions of para 9 of AMS II.C version 09, the CME was undertaking provision of 240 cross check samples under the parameter nPCCG. This was found to be as per the requirement of AMS II.C version 09 para 9. In the proposed revised

monitoring plan, the CME proposes to undertake the sampling of 97households (388CFLs for block of CPA/s) under parameter nPCCG for cross checking purpose. This was also found to be in line with the requirement of AMS II.C version 09 para 9 and thus accepted.

This revision improves the accuracy of information provided and consistency in the monitoring plan. The proposed revision of the monitoring plan ensures that the level of accuracy and completeness in the monitoring and verification process is not reduced as a result of the revisions.

Thus it is to confirm that the all above conditions as specified by the methodology are fulfilled for this project activity. Thus the proposed revision of the monitoring plan is in accordance with the approved monitoring methodology AMS II.C version 9 applicable to the project activity.

This revision either improves or has no effect on the accuracy of information provided and consistency in registered PoA-DD and the monitoring plan. This has been validated based on requirements of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

4.2 Findings of Previous Verification Reports

FAR #07 was raised during the verification of CPA-1 for the period of 01/12/2009 to 30/11/2010 wherein the CME was to revise the monitoring plan so as to include the provisions/procedures to be adopted for all such situations where the complete data for monitoring period of the sample group of 240 CFLs would not be/may not be available.

This is to confirm that the issues raised in the FAR #07 have been addressed in this revision and the revision has been in line with the requirements of SSC_CLA_570.

5. List of Persons Interviewed

Date of site visit	Name	Position	Short description of subject discussed
24/01/2011 to 27/01/2011 30/01/2012 to 05/03/2012 (via phone calls and emails –no site visit)	Chris Tierney,	General Manager Business Services, cool nrg International Pty Ltd	General Description of PoA, CPA-1, Monitoring Aspects, Sampling Plan, Monitoring Device, Procedure of Monitoring. Revision in Monitoring Plan
24/01/2011 to 27/01/2011	Gabrielle Henry	cool nrg International Pty Ltd (Available through conference call and video chat)	General Description of PoA, CPA-1, Monitoring Aspects, Sampling Plan, Monitoring Device, Procedure of Monitoring.
24/01/2011 to 27/01/2011	Manuel Rosemberg,	Country Manager Cool nrg	On-Site evaluation of Samples.
24/01/2011 to 27/01/2011	Alan Gallart,	Logistics, Cool nrg	On-Site evaluation of Samples.
30/01/2012 to 05/03/2012 (via phone calls and emails –no site visit)	Anil Bhatta	Cool nrg Pty Ltd	Revision in Monitoring Plan

6. Document References

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

/1/	PoA_SSC_DD_CUIDEMOS Mexico_V1_140212 track
/1a/	PoA_SSC_DD_CUIDEMOS Mexico_V2_200512 track
/1b/	PoA_SSC_DD_CUIDEMOS Mexico_V3_050712 track
/2/	PoA_SSC_DD_CUIDEMOS Mexico_V1_140212
/2a/	PoA_SSC_DD_CUIDEMOS Mexico_V2_200512
/2b/	PoA_SSC_DD_CUIDEMOS Mexico_V3_050712
/3/	SSC_CPA_DD_CUIDEMOS_Form_V1_140212 track
/3a/	SSC_CPA_DD_CUIDEMOS_Form_V2_200512 track
/3b/	SSC_CPA_DD_CUIDEMOS_Form_V3_050712 track
/4/	SSC_CPA_DD_CUIDEMOS_Form_V1_140212
/4a/	SSC_CPA_DD_CUIDEMOS_Form_V2_200512
/4b/	SSC_CPA_DD_CUIDEMOS_Form_V3_050712
/5/	Annex 7 – CUIDEMOS Mexico_Sampling Plan RMP track
/5a/	Annex 7 – CUIDEMOS Mexico_Sampling Plan RMP
/5b/	Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP190512-1 track
/5c/	Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP190512-1
/5d/	Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP 040712-track
/5e/	Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP 040712

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

/6/	Registered POA-DD version 06 dated 17/02/2009
/7/	Registered Generic CPA-DD version 05 dated 22/07/2009
/8/	Validation Report, dated 30/07/2009
/9/	AMS II.C version 09
/10/	*http://cdm.unfccc.int/ProgrammeOfActivities/poa_db/17BH6AJX524TYQUZF8KGCWV3OIPSE9/view*
/11/	*http://cdm.unfccc.int/ProgrammeOfActivities/FS_POA/2535/index.html*
/12/	*http://cdm.unfccc.int/methodologies/SSCmethodologies/clarifications/79960*

/13/ General Guidelines For Sampling And Surveys For Small-Scale Cdm Project Activities versión 01; EB 50 Annex 20
/14/ Standard for Sampling and Surveys for CDM Project Activities and Programme of activities (Version 02.0)- EB 65 Annex 2
/15/ University of Melbourne Report no. 854 dated 06/03/2012
/16/ Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0) EB 67 Annex 6

Annex 1: Validation Protocols

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.1. General Requirements *(Note that the sections A.1.1- A.1.4 may be completed after the other sections are completed)*				
A.1.1. Is the revision in the monitoring plan based on a decision by the CDM EB	EB49, Annex 29	DR	No the revision in the monitoring plan is not based on a decision by the CDM EB. However it is correlated to the clarification taken by the CME for the POA (SSC_CLA_570)	Y
A.1.2. Is the revision based on a decision by CDM EB but also additional revisions are proposed by the CME/DOE	EB49, Annex 29	DR	The revision is not based on decisions by CDM EB. It is proposed by the CME/DOE.	Y
A.1.3. Is the need for revision in monitoring plan spotted during the first monitoring period?	EB49, Annex 29 Project page on UNFCCC website	DR	The requirement of revision in monitoring plan was spotted during the first monitoring period however, the request for revision of the monitoring plan has been proposed for period beyond the first monitoring period.	Y
A.1.4. Is the revised monitoring plan complete and does the revised monitoring plan follow the registered PoA DD template?	Registered PoA DD, CPA-DD	DR	The CME has correctly used the templates and used the Registered documents in reworking for the RMP.	Y
A.1.5. Has the revised monitoring plan submitted in track change mode for each of the revision point (issue)?	Revised monitoring plan	DR	PP has submitted a revised monitoring plan in track change mode (word file) to DOE Track change mode and clean mode is included in the submission from PoA DD.	Y
A.1.6. is there an objective evidence for each of the proposed revision point (issue)?	Revised monitoring plan	DR	Yes there are objective evidences of the additional parameters provided which have been cross verified during the site visit and found consistent.	Y
A.1.7. Does the revised monitoring plan also include the Annex?	Registered POA DD A.4.4.2 & Annex 4	DR	Yes the Annex 7 has been removed and Annex 8 has been revised as Annex 7 of the PoA DD is also included and is in track change mode.	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.1.8. Does the revised monitoring plan lead/associate to any kind of change in the project registered design?	Registered POA DD A.4.4.2 & EB48 Annex 66-67	DR	There is no change in the project registered design due to the change in the revised monitoring plan. Only the algorithm is revised and there is change in the monitoring equipment which is reflected in the RMP	Y
A.2. Data and Parameters Monitored				
A.2.1. Does the revised monitoring plan in the PoA-DD comply with the approved methodology provided for the collection and archiving of all relevant data necessary for estimation or measuring the emission reductions within the project boundary during the crediting period?	VVM Para. 91a/91d/121 Revised MP Section B.7 EB49, annex 2, para 9	DR	Revised monitoring plan contains all necessary parameters to improve transparency in monitoring procedure and the conformity with approved monitoring methodology. It is confirmed that changes in the revised monitoring plan should have no impact on the calculation of the emissions reduction achieved by this project activity. Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data	Y
A.2.2. Are the changes in the monitoring plan inline to the applied methodology and tool?	AMS II.C version 09	DR	Revised monitoring plan is inline with applicable methodology AMS II. C, version 09	Y
A.2.3. Are the changes affecting the ER calculation (directly/indirectly)?	Revised MP	DR	The RMP would not affect the emission reduction calculation	Y
A.2.4. Is the information given for each monitoring variable by the presented table sufficient to ensure the verification of a proper implementation of the monitoring plan?	RMP Section E.6.3	DR	Information's for each monitoring parameter provided in a transparent manner	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.2.5. Has there been an issuance with the original monitoring plan of the registered PoADD in the past? A.2.6. if so how did the identified gaps effect the ER calculations for the monitoring periods in the past?	Project page on UNFCCC website	DR	No there has been no issuance prior to this with the original monitoring plan of the registered PoA DD. A request for deviation is requested post rejection of the 1st monitoring period. There has been no gaps identified that would effect the ER calculation for the monitoring periods in the past.	Y
A.2.7. Is the information given for each monitoring variable by the presented table sufficient to ensure the delivery of high quality data free of potential for biases or intended or unintended changes in data records?	RMP Section – E.6.3	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data.	Y
A.2.8. Is the monitoring approach in line with current good practice, i.e. will it deliver data in a reliable and reasonably acceptable accuracy?	RMP Section- E.6.3	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data.	Y
A.2.9. Are all formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	Revised MP Section - E.6.3	DR	All formulae used to determine project emission clearly indicated and in compliance with the monitoring methodology.	Y
A.3. Quality Control (QC) and Quality Assurance (QA) Procedures				
A.3.1. Is the selection of data undergoing quality control and	VVM Para. 121	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data. It is also confirmed by means of review of the documented procedures, interviews with plant personnel and physical	Y

	Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
	quality assurance procedures complete?			inspection of the CDM project activity site that project participant has ability to implement the monitoring plan.	
A.3.2.	in case, a revision is proposed, the impact of the revision should be assessed and it not result in reduced level of accuracy and completeness in the monitoring and verification process	EB49, annex 2, para 9		Revised monitoring plan should have not result in reduced level on accuracy and completeness in the monitoring and verification process because the revision is aimed to describe the monitoring procedure in a transparent manner as per the applicable methodology CME has to clarify how the new monitoring equipment can be considered as more effective in terms of accuracy and completeness of data as compared to the previous device (LEAN RADAR) CME clarified that the new monitoring equipment provide more accurate data and allows the CME to capture more complete set of data. The new monitoring equipment has the following advantages as compared to the Lean Radar (LR) device: 1. The LR device uses home modem and internet connection for data transmission whereas the monitoring equipment uses GPRS/GSM technology that transmits data wirelessly. As the LR equipment sends the data via the home modem and internet connection the device could go offline for various reasons (e.g. device being unplugged, faulty modem, households not paying their internet bill etc). 2. In the new monitoring equipment, each monitoring device independently transmits data whereas the LR monitoring device sends the data to a central receiver/coordinator, which then finally transmits the data. If a receiver/coordinator fails then all 4 monitoring devices will not send data. 3. When the light is shown as off for an extended period the monitoring Equipment is able to test whether that is due to the light being off or as a result of a faulty unit. This feature is not available in the LR device. 4. The new monitoring equipment measures the exact times that the light is turned on and off. Based on the above justification provided by the CME, it was concluded that the new monitoring equipment based on the GPRS/GSM technology would be capable of capturing more effectively the ON/OFF of the CFLs than the Lean Radar and hence the equipment was found to be more effective in terms of accuracy and completeness of data as compared to previous device and hence accepted. CL #02 closed.	~~CL 02 was raised~~ CL 02 closed Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.3.3. Are quality control procedures and quality assurance procedures sufficiently described to ensure the delivery of high quality data?	VVM Para 121	DR	Revised MP includes the data management and quality assurance and quality control procedures to ensure the delivery of unambiguous data.	Y
A.3.4. Is it ensured that data will be bound to national or internal reference standards?	VVM Para. 86d	DR	All the monitoring data are compliance with national and sectoral policies and circumstances are considered and listed in the PoA DD.	Y
A.4. Operational and Management Structure				
A.4.1. Is the authority and responsibility of project management clearly described?	PoA DD Section E.7.2 /Annex 4	DR	Authority and responsibility of project management is described in transparent manner in Annex 4 which refers to revised Annex 7 of revised MP of PoA DD	Y
A.4.2. Is the authority and responsibility for registration, monitoring, measurement and reporting clearly described?	PoA DD Section E.7.2/Annex 4	DR	Authority and responsibility of project management is described in transparent manner in Annex 7 revised of revised MP of PoA DD	Y
A.5. Monitoring Plan (Annex 4)				
A.5.1. Does the monitoring plan completely describe all measures to be implemented for monitoring all parameter required, including measures to be implemented for ensuring data quality?	VVM Para. 122b	DR	Revised monitoring plan describe the measures to be implemented for monitoring all parameter clearly and QA/QC procedure to ensure delivery of quality data. CME is requested to clarify how the request for revision in monitoring plan of the POA-DD is in line with the SSC CLA 570. In response CME clarified that SSC CLA 570 relates to the clarification for cases where the 90/10 confidence/precision is not met. The request for revision in monitoring plan in CPA1 is in line with the SSC CLA 570. The reasons are stated below: In response to SSC CLA 570, the SSC WG had suggested to determine the sample size at the planning stage by taking a range of possibly relevant values for the standard	CL#01 raised CL #01 closed Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
			deviation and target means, including some extra samples to ensure that the required precision is always met. In the first monitoring period (1/12/09 to 30/11/2010) of CPA 2525-0001 (CUIDEMOS Mexico (Campana De Uso Intelegente De Energia Mexico) – Puebla), the precision of the average operating hours of the CFLs did not meet the 90/10 confidence/precision criteria. In order to ensure that all CPAs included in the PoA meet the desired precision level in the subsequent monitoring periods, the CME opted to revise the sample size based on the actual data (such as standard deviation and mean) obtained from the first monitoring period of CPA 1. The CME has also incorporated extra samples in the final sample size to allow potential monitoring equipment failure and ensure that the required precision is met. This was checked in the RMP PoA-DD and CPA-DD and found to be consistent hence accepted. The CME had revised the number of households for the sampling as 220 as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs and 97 as Total sample size used for checking to ensure ongoing operation of project devices and it would have provisions as per 95% confidence level in line with the requirement of General Guideline of Sampling and Survey version 01 and hence accepted. Also precision level of 10 is maintained as the sample size has been taken at large from the existing monitoring plan. Please refer further discussion on CL#01 in the Findings Overview section below.	

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
A.5.2. Does the monitoring plan provide information on monitoring equipment and respective positioning in order to safeguard a proper installation?	VVM Para. 122b	DR	Revised monitoring plan includes all the information's about monitoring equipments involved in project activity.	Y
A.5.3. Is there any change proposed in the specifications of the monitoring equipment or their positioning or installation then the impact of the change due to revision should be assessed and it not result in reduced level of accuracy and completeness in the monitoring and verification process	EB49, annex 2, para 9	DR	Refer A.5.1	Pending closure CL#01
A.5.4. Are procedures identified for calibration of monitoring equipment?	VVM Para. 122a-c	DR	Revised monitoring plan mentions the calibration procedure for monitoring equipments.	Y
A.5.5. Is there any change proposed in the calibration procedures, if yes then the impact of the change due to revision should not result in reduced level of accuracy and completeness in the monitoring and verification process	EB49, annex 2, para 9	DR	There is no change proposed in the calibration procedure.	Y
A.5.6. Are procedures identified for day-to-day records handling (including what records to keep, storage area of records and how to process performance	VVM Para. 122a-c	DR	Data handling and data recoding procedure discussed in revised monitoring plan inline with the requirements of methodology	Y

Checklist Question	Reference	MoV*	Comments	Conclusion/ CARs/CLs
documentation)				
A.5.7. Are procedures identified for project performance reviews before data is submitted for verification, internally or externally?	VVM Para. 122a-c	DR	Monitoring arrangements described in the revised monitoring plan are feasible within the project design	Y

Annex 2: Overview of Findings

Findings Overview Summary

	CARs	CLs	FARs
Total Number raised	00	02	00

Date:	27/02/2012		Raised by:	Assessment Team	
Type:	CL	Number:	01	Reference:	RMP Document for POA DD
Lead Assessor Comment:				**Date:** 27/02/2012	
CME is requested to clarify how the request for revision in monitoring plan of the POA-DD is in line with the SSC CLA 570.					
Project Participant Response:				**Date:** 28/02/2012	
The SSC CLA 570 relates to the clarification for cases where the 90/10 confidence/precision is not met. The request for revision in monitoring plan in CPA1 is in line with the SSC CLA 570. The reasons are stated below: In response to SSC CLA 570, the SSC WG had suggested to determine the sample size at the planning stage by taking a range of possibly relevant values for the standard deviation and target means, including some extra samples to ensure that the required precision is always met. In the first monitoring period (1/12/09 to 30/11/2010) of CPA 2525-0001 (CUIDEMOS Mexico (Campana De Uso Intelegente De Energia Mexico) – Puebla), the precision of the average operating hours of the CFLs did not meet the 90/10 confidence/precision criteria. In order to ensure that all CPAs included in the PoA meet the desired precision level in the subsequent monitoring periods, the CME opted to revise the sample size based on the actual data (such as standard deviation and mean) obtained from the first monitoring period of CPA 1. The CME has also incorporated extra samples in the final sample size to allow potential monitoring equipment failure and ensure that the required precision is met.					
Documentation Provided as Evidence by Project Participant:					
RMP document PoA DD					
Information Verified by Lead Assessor:					
RMP document PoA DD					
Reasoning for not Acceptance or Acceptance and Close Out:					

The explanation of coherence of the RMP with the SSC CLA 570 was checked in the RMP PoA-DD and CPA-DD and found to be consistent in terms of additional sample size required. The CME had revised the number of households for the sampling as 220 as Total sample size used for monitoring utilisation hours/electricity consumption of CFLs and 97 as Total sample size used for checking to ensure ongoing operation of project devices and it would have provisions as per 95% confidence level in line with the requirement of General Guideline of Sampling and Survey version 01 and hence accepted. Also precision level of 10 is maintained as the sample size has been taken at large from the existing monitoring plan.

1. CME is requested to further clarify how the level of accuracy and completeness in the monitoring and verification process is not reduced given that:
(a) for parameter nPSG, the sampling size is changed from 240 CFLs for each CPA to 220 households (or up to 880 CFLs for the entire PoA);
(b) for parameter nPCCG, the sampling size is changed from 240 CFLs for each CPA to 97 households (or up to 388 CFLs for each block of CPAs);
(c) the registered monitoring plan prescribes an error margin of 6.5% for both parameter nPSG and nPCCG, while the revised monitoring plan proposes an error margin of 10%;
(d) the registered monitoring plan (PoA-DD page 41) where possible will use the total electricity consumption that is measured by the metering devices, however the revision of the monitoring plan in the PoA-DD removes this provision. Furthermore, the DOE needs to further clarify as this provision remains in the proposed revision of monitoring plan in the CPA-DD-Generic and CPA-DD-specific.
2. The revised monitoring plan of the PoA-DD and CPA-DD-generic mentions that 97 households will be survey. It is not clear whether this will be considered for each CPA or not

3. CME is requested to further clarify how the proposed approach to take when the required precision of 10% of a 95% confidence level was not met is appropriate (to use the lower value of the interval instead of mean for the emission reduction calculation), given that the EB50 Annex 30 paragraph 12 states “if the estimates from the actual samples fail to achieve the target minimum levels of precision, project participants shall perform additional data collection that is a supplemental or new sample”.

4. The document Annex 7 Cuidemos Mexico PoA - Sampling Plan on Section 4 mentions “The initial sampling frame will be for all existing CPAs at the time of sampling, which will be a subset of the entire project targeted over the course of the PoA. However, all future CPAs will be based around similar distribution points, target the same population and will have similar usage patterns. Therefore there is no need to conduct additional sampling for future CPAs.”. The CME is requested to further clarify whether or not sampling will be carried out once for the entire lifetime of the PoA. Furthermore, if not, the frequency of the sampling should be determined and described in the revised monitoring plan. If yes, how it is in line with AMS-II.C version 09 which requires the monitoring of either the “power” and “operating hours” or the “energy use” of the devices (para 8).

Acceptance and Close out by Lead Assessor: Open	**Date:** 09/05/2012
Project Participant Response:	**Date: 20/05/2012**

1. a)For parameter nPSG, the estimated sample size 220 households (or up to 880 CFLs for entire PoA) will not reduce the accuracy and completeness in the monitoring and verification process because of the following reasons:

- The estimated sample size is conservative as it allows for the unexpected increase in the variability between households. It is worth noting that the amount of variation affects the sample size required as stated in paragraph 8b of the “Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)”. As outlined in section 3.1 of Annex 7 Cuidemos Mexico PoA - Sampling Plan, to allow for potential higher variance at the national level, increased contingency is built into the recommended sample size through an inflated standard deviation. Standard Deviation of 1.977 was estimated for the CUIDEMOS Mexico – CPA 1, Puebla, which was inflated to 2.33 to allow for potential higher variance at the national level and therefore achieve the required precision.

- It should be noted that the larger population size doesn’t require larger sample. As long as the existing sample is representative of the larger population, the sample size depends on the variability in the quantity being measured, not the population size. This is evident from the formulae used in the sample size calculations in section 3.1 of Annex 7 Cuidemos Mexico PoA - Sampling Plan, as sample size calculation do not involve the population size, only the mean, standard deviation and the precision are used.

b) For parameter nPCCG, the estimated sample size 97 households (or up to 388 CFLs for each block of CPAs) will not reduce the accuracy and completeness in the monitoring and verification process. The desired precision of 10% for a 95% confidence interval is the basis for estimation of the sample size for PCCG group. As discussed above, the sample size is independent of population size that depends on the standard deviation for number of CFLs operating each households and average number of CFLs operating in each household. This is evident from the formulae used in the PCCG sample size calculations in section 3.2 of Annex 7 Cuidemos Mexico PoA - Sampling Plan. Further, it should be noted that the 97 households is the minimum sample size for PCCG and the CME may increase the sample size if required.
c) The CME had prescribed an error margin of 6.5% for both parameter nPSG and nPCCG in the registered monitoring plan as there were no standard for sampling and survey for CDM project activities and programme of activities at the time when the PoA was registered. In the revised monitoring plan, the CME has applied an error margin of 10% to comply with the Sampling Requirements for PoAs (paragraph 19) of Standard for Sampling and Surveys for CDM Project Activities and Programme of Activities (Version 02.0). As discussed above, the amount of variation affects the sample size. The larger the variation associated with the parameter of interest the larger the sample size required for the same level of confidence and precision. In the revised monitoring plan, the CME has estimated the sample size based on the actual data collected from CUIDEMOS Mexico – CPA 1 that will further ensure that the sample selected will meet the required reliability criteria. When the registered monitoring plan was developed there was no such actual data (e.g. variability or standard deviation) available for sample size calculation.
d) The removed statement has been reinstated in the revised PoA-DD RMP (page 13) and Generic CPA-DD RMP (page 5). The provision remains the same in the CPA-DD as outlined in page 5 under the heading “Monitoring Use of Project Devices”.
2) In order to constitute the sample size for PCCG group, CPAs will be grouped according to distribution date. Each block of CPA/s may consist of one or more CPAs. A minimum of 97 households will be surveyed for each block of CPA/s whether the block contains a single CPA or more. A separate sample will be taken for each of these blocks. Specifically, all CPAs where distribution occurred within a three-month period will be combined for the purposes of this estimation and a sample will be taken randomly from the set of all non-metered households in that block of CPA/s. If no group of CPA could be formed or a single CPA distribution occur in three months time then a separate PCCG survey will be carried out for that CPA. The CME has included the aforementioned information in the PoA-DD and Generic CPA-DD.
3) The CME has removed Section 3.1.1 (Failure to achieve desired level of precision for average operating hours) from Annex 7 Cuidemos Mexico PoA-Sampling Plan that proposes to use the lower value of the interval instead of mean for the emission reduction calculation when the required precision of 10% of a 95% confidence level is not met. The CME will comply with EB 50 Annex 30 paragraph 12.
4) The sampling will be carried out once for the entire lifetime of the PoA as stated in section 4 of Annex7 Cuidemos Mexico PoA-Sampling Plan. The AMS-II.C version 9 (paragraph 8) states that: Monitoring shall consist of monitoring either the “power” and “operating hours” or the “energy use” of the devices installed using an appropriate methodology. Possible methodologies include: (a) Recording the “power” of the device installed (e.g., lamp or refrigerator) using nameplate data or bench tests of a sample of the units installed and metering a sample of the units installed for their operating hours using run time meters. OR (b) Metering the “energy use” of an appropriate sample of the devices installed. For technologies that represent fixed loads while operating, such as lamps, the sample can be small while for technologies that involve variable loads, such as air conditioners, the sample may need to be relatively large. The proposed approach is in line with AMS-II.C version 9 (paragraph 8 a) as the monitoring consist of monitoring “power” and “operating hours” of the CFLs that are distributed in PoA. The CME will record the “power” of all CFLs using the nameplate data during the distribution of the CFLs. This means that the power rating of the CFLs that will be distributed in the future CPAs will be also recorded and this information will be utilized for emission reduction calculation. Similarly, “Operating hours” data will be obtained by monitoring representative samples of CFL using monitoring equipment. It should be noted that it is only the sampling that occurs once; the monitoring is ongoing throughout the life of the PoA. The representative sample of CFLs will be monitored for each monitoring period throughout the life of the PoA.
Documentation Provided as Evidence by Project Participant:
PoA-DD v2, CPA-DD v2, Generic CPA-DD v2, Annex 7 Cuidemos Mexico PoA - Sampling Plan

Information Verified by Lead Assessor:
PoA_SSC_DD_CUIDEMOS Mexico_V2_200512 track SSC_CPA_DD_CUIDEMOS_Form_V2_200512track Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP190512-1 track
Reasoning for not Acceptance or Acceptance and Close Out:

1. a.) For the parameter nPSG, the proposed sample size of 220households i.e. 880CFLs is representative of the entire population of Mexico. The revised approach of sampling for this parameter was checked and found to be correctly calculated based on independent sample analysis by University of Melbourne Report no. 854 dated 06/03/2012 and was checked in line with the requirement of EB 65 Annex 2 para 20-26 and found to be appropriately considered. It can be deemed that the approach of sampling mechanism as in the registered monitoring plan and the revised monitoring plan are two different approach of sampling. Initially the CME had considered the that the sampling would be based on each CPA, however with the actual experience of CPA1, Puebla, it was seen that the entire population of the PoA was representative of the similar pattern of CFL operation and there was very low probability of a increase in the variance for the households. Thus the revised approach of sampling was based in line with the paragraph 19 of the Standard for Sampling and Survey (EB 65 Annex 2) and a completely different approach in terms of sampling. Also this was found to be in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. Further, it was evaluated that what would be the effect on level of accuracy of sampling due to this proposed change. It was demonstrated by the CME that due to the lower variance over the entire population as per the University of Melbourne Report no. 854 dated 06/03/2012, the sample size chosen was representative of the larger population and since population do not have any effect on the sample size thus the sample size proposed did not have any effect on the level of accuracy of monitoring compared to the registered monitoring plan. The explanation provided by the CME was checked with the information on the University of Melbourne Report no. 854 dated 06/03/2012 and also the formulae used for estimation of the sample size and it was found to be independent of the population size. It can be noted that all the required parameters of mean, standard deviation and precision level of 90% as per the requirement of the Standard for Sampling and Survey (EB 65 Annex 2) for small scale project was found to be have been met and thus it can be concluded that due to this proposed revision in the parameter nPSG there would be no effect on the accuracy level and completeness of monitoring.
The CME is requested to submit a revised monitoring plan which incorporates information that the samples for parameter nPSG will be randomly selected and selected across all combined CPAs under the PoA in accordance with the footnote 13 of paragraph 19 of the EB65 Annex 2 which indicates that a single sampling plan can be only undertaken by combining the population of all CPAs together.

b.) For the parameter nPCCG, the proposed sample size of 97households i.e. 388CFLs is representative of cross check sample for each block of CPA. The revised approach of sampling for this parameter was checked and found to be correctly calculated based on independent sample analysis by University of Melbourne Report no. 854 dated 06/03/2012 and was checked in line with the requirement of EB 65 Annex 2 para 20-26 and found to be appropriately considered. It can be deemed that the approach of sampling mechanism as in the registered monitoring plan and the revised monitoring plan are two different approach of sampling. Initially the CME had considered the that the sampling would be based on each CPA, however with the actual experience of CPA1, Puebla, it was seen that the entire population of the PoA was representative of the similar pattern of CFL operation and there was very low probability of a increase in the variance for the households. Thus keeping in line with the requirement of para 9 of AMS II.C version 09, the CME has proposed to undertake the cross check sample of 97 households for each block of CPAs being included in the PoA. Thus the revised approach of sampling was based in line with the paragraph 19 of the Standard for Sampling and Survey (EB 65 Annex 2) and a completely different approach in terms of sampling. Also this was found to be in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. Further, it was evaluated that what would be the effect on level of accuracy of sampling due to this proposed change. It was demonstrated by the CME that due to the lower variance over the entire population as per the University of Melbourne Report no. 854 dated 06/03/2012, the sample size chosen was representative of the larger population and since population do not have any effect on the sample size thus the sample size proposed did not have any effect on the level of accuracy of monitoring compared to the registered monitoring plan. The explanation provided by the CME was checked with the information on the University of Melbourne Report no. 854 dated 06/03/2012 and also the formulae used for estimation of the sample size and it was found to be independent of the population size. It can be noted that all the required parameters of mean, standard deviation and precision level of 90% as per the requirement of the Standard for Sampling and Survey (EB 65 Annex 2) for small scale project was found to be have been met and thus it can be concluded that due to this proposed revision in the parameter nPCCG there would be no effect on the accuracy level and completeness of monitoring. Thus, the same was found to be in line with the requirement of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.

c.) The justification provided by the CME was checked with the provisions of EB during the registration of the PoA 2535 and it was found that there was no Guideline or Standard available at the time of validation of the programme of activity. Further it was checked that the CME had adopted the error margin on parameters nPSG and nPCCG as 6.5% in the initial monitoring plan as compared to the error margin on on parameters nPSG and nPCCG as 10% in the proposed revised monitoring plan. The two approaches of sampling as demonstrated in the earlier sections are different and as such the provisions by the CME to keep 10% error margin on the parameters would meet the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0)" and thus accepted. In terms of level of accuracy, since the two approach of sampling when the registered monitoring plan is compared with the proposed revised monitoring plan, it can be deemed that the there would no effect on the level of accuracy in sampling with error being 6.5% in the registered monitoring plan and error being 10% in the proposed monitoring plan. It can also be noted that due to no guideline/standard available the CME had considered a conservative 6.5% during the registration of the project and now during the revision of the monitoring plan is complying with the requirements of the Standard for Sampling and Survey (EB 65 Annex 2) and also in line with the paragraph 8b of the "Best Practices Examples Focusing on Sample Size and Reliability Calculations (Version 01.0). With the error margin of 10% in the proposed monitoring plan the CME also meets the requirement of 95% precision level and thus it can be concluded that with the proposed change of approach in sampling for parameter nPSG and nPCCG, the change of error margin from 6.5% to 10% will not have effect on accuracy of consideration of the samples and thus in line with the requirements of EB 49 Annex 28 para 9(a) and VVM 1.2 para 7,8 and 217 and hence accepted.
d) The POA-DD RMP version 02 and Generic CPA-DD RMP version 02 were checked and the provision of the Monitoring Use of Project Devices was found to be kept as it was in the registered monitoring plan with the provision of such metering at the PoA level which was earlier mentioned at the CPA level. It was found to be more appropriate in terms of the revised monitoring plan and was also checked and found to be in line with the CPA-Generic document and CPA-specific document and hence accepted.
2.) The CME clarified that the provision of the use the lower value of the interval instead of mean for the emission reduction calculation was based on the experience of CPA1 verification in which a request of deviation has been proposed as the sampling of 240 was found to be incomplete and not meeting the 95/10 precision/confidence level. However, since the deviation was permanent the CME proposes to revise the monitoring plan of the project and consider permanent way out for such situation where the 95/10 precision/confidence level is not met. The CME clarified that in the revised PoA-DD RMP version 02, the provision for such scenario would be only to adopt more samples as per the requirement of EB 50 Annex 30 paragraph 12 and it was found to be appropriate and in line with the requirements of the provisions of EB and thus accepted.
3.) The provisions of the sampling in terms of the parameter nPSG (220 households, 880CFLs for the entire POA) were clarified by the CME to be once in terms of sample identification for the entire PoA and continuous monitoring of the samples throughout the life time of the PoA for 28years within the project boundary of Mexico state only as per the provisions of the registered PoA-DD. For all the samples under the parameter nPSG, in the revised monitoring plan the CME clarified that monitoring equipment shall be installed which would be monitoring the operating hours of the sample. Further for the parameter nPCCG, which is the cross check parameter, for every inclusion of CPA or block of CPAs, the CME would undertake random sampling of minimum 97 households which would be on an annual basis and can be random for each year.
The provisions in the revised monitoring plan were checked with the provisions in the registered monitoring plan in terms of the applicability of AMS II.C version 09 paragraph 8. In the registered monitoring plan as per the provisions of para 8 of AMS II.C version 09, the CME was undertaking provision of 240 monitoring devices with the 240 CLFs of the parameter nPSG to monitor the hours of operation and based on the rating of the CFLs, the power was recorded. This was as per the requirement of AMS II.C version 09 para 8. In the proposed revised monitoring plan, the CME proposes to undertake the sampling of 220households (880CFLs) under parameter nPSG which would have monitoring equipments for measuring the operating hours and with rating of each CFL being available, the recording of the power of all the CFLs. This was also found to be in line with the requirement of AMS II.C version 09 para 8 and with the provision of change of the monitoring device as proposed by the CME as compared to the registered monitoring plan, the reliability of the data received for the 220households would be more as thus rectifying the issue of incomplete data due to equipment failure as faced by the CME during the monitoring of the parameter in the CPA1, Puebla. Thus the requirement of AMS II.C version 09 para 8 was found to be appropriately being met.

Further the provisions of the sampling in terms of the parameter nPCCG (97 households, 388CFLs for each CPA or block of CPA) were clarified by the CME to be once in terms of sample identification for the CPA or block of CPA and on yearly basis within the project boundary of Mexico state only as per the provisions of the registered PoA-DD. For all the samples under the parameter nPCCG, The provisions in the revised monitoring plan were checked with the provisions in the registered monitoring plan in terms of the applicability of AMS II.C version 09 paragraph 8. In the registered monitoring plan as per the provisions of para 9 of AMS II.C version 09, the CME was undertaking provision of 240 cross check samples under the parameter nPCCG. This was found to be as per the requirement of AMS II.C version 09 para 8. In the proposed revised monitoring plan, the CME proposes to undertake the sampling of 97households (388CFLs for each CPA or block of CPA) under parameter nPCCG for cross checking purpose. This was also found to be in line with the requirement of AMS II.C version 09 para 9 and thus accepted.	
Acceptance and Close out by Lead Assessor: Open	**Date:** 03/07/2012
Project Participant Response:	**Date: 04/07/2012**
The project participant has revised the monitoring plan, which incorporates information that the samples for PSG will be randomly selected and selected across all combined CPAs under the PoA accordance with the footnote 13 of paragraph 19 of EB65 Annex 2. *The updated statements can be found in the monitoring plan under section 2.3.1 (2nd paragraph) and section 3.1 (2nd Paragraph).*	
Documentation Provided as Evidence by Project Participant:	
Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP 040712-1 track.docx *Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP 040712-1 clean.docx*	
Information Verified by Lead Assessor:	
Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP 040712-1 track.docx *Annex 7 - CUIDEMOS Mexico_Sampling Plan _RMP 040712-1 clean.docx*	
Reasoning for not Acceptance or Acceptance and Close Out:	
CME is required to clarify the aspects covered in the Annex 7 for the parameter nPSG as per the correction request by the EB in the POA-DD, Generic CPA-DD and Specific CPA-DD under the sections of monitoring parameters and meeting the requirement of 95/10 precision/confidence level.	
Acceptance and Close out by Lead Assessor: Open	**Date:** 05/07/2012
Project Participant Response:	**Date: 05/07/2012**
The project participant has revised the PoA-DD, CPA-DD and Generic CPA-DD as requested which incorporates information that the samples for PSG will be randomly selected and selected across all combined CPAs under the PoA by applying 95/10 confidence /precision for sample size calculation in accordance with the footnote 13 of paragraph 19 of EB 65, Annex 2. *The updated statements can be found in section E.6.3, B.5.1 and B.5.1 in the PoA-DD, CPA-DD and CPA-DD Generic respectively.*	
Documentation Provided as Evidence by Project Participant:	
PoA_SSC_DD_CUIDEMOS Mexico_V3_050712 clean *PoA_SSC_DD_CUIDEMOS Mexico_V3_050712 track* *SSC_CPA_DD_CUIDEMOS Puebla_V3_050712 clean* *SSC_CPA_DD_CUIDEMOS Puebla_V3_050712 track* *SSC_CPA_DD_CUIDEMOS_Form_V3_050712 clean* *SSC_CPA_DD_CUIDEMOS_Form_V3_050712 track*	
Information Verified by Lead Assessor:	
PoA_SSC_DD_CUIDEMOS Mexico_V3_050712 clean *PoA_SSC_DD_CUIDEMOS Mexico_V3_050712 track* *SSC_CPA_DD_CUIDEMOS Puebla_V3_050712 clean* *SSC_CPA_DD_CUIDEMOS Puebla_V3_050712 track* *SSC_CPA_DD_CUIDEMOS_Form_V3_050712 clean* *SSC_CPA_DD_CUIDEMOS_Form_V3_050712 track*	
Reasoning for not Acceptance or Acceptance and Close Out:	
The revised documents were checked and samples for PSG were found to be randomly selected and selected across all combined CPAs under the PoA accordance with the footnote 13 of paragraph 19 of EB65 Annex 2 and meeting the requirement of 95/10 precision/confidence level thus accepted.	
Acceptance and Close out by Lead Assessor: Closed	**Date:** 05/07/2012

Date:	27/02/2012		Raised by:	Assessment Team	
Type:	CL	Number:	02	Reference:	RMP Document for POA DD

Lead Assessor Comment:	**Date:** 27/02/2012
CME has to clarify how the new monitoring equipment can be considered as more effective in terms of accuracy and completeness of data as compared to the previous device (LEAN RADAR)	
Project Participant Response:	**Date:** 28/02/2012
The new monitoring equipment provides more accurate data and allows the CME to capture a more complete set of data. The new monitoring equipment has the following advantages as compared to the Lean Radar (LR) device: 1. The LR device uses home modem and internet connection for data transmission whereas the new monitoring equipment uses GPRS/GSM technology that transmits data wirelessly. As the LR equipment sends the data via the home modem and internet connection the device could go offline for various reasons (e.g. device being unplugged, faulty modem, households not paying their internet bill etc). 2. In the new monitoring equipment, each monitoring device independently transmits data whereas the LR monitoring device sends the data to a central receiver/coordinator, which then finally transmits the data. If a receiver/coordinator fails then all 4 monitoring devices will not send data. 3. When the light is shown as off for an extended period the new monitoring Equipment is able to test whether that is due to the light being off or as a result of a faulty unit. This feature is not available in the LR device. 4. The new monitoring Equipment measures the exact times that the light is turned on and off.	
Documentation Provided as Evidence by Project Participant:	
New_Monitoring Equipment_ Specification *Monitoring Equipment_Lean Radar Specification*	
Information Verified by Lead Assessor:	
New_Monitoring Equipment_ Specification *Monitoring Equipment_Lean Radar Specification*	
Reasoning for not Acceptance or Acceptance and Close Out:	
Based on the above justification provided by the CME, it was concluded that the new monitoring equipment based on the GPRS/GSM technology would be capable of capturing more effectively the ON/OFF of the CFLs than the Lean Radar and hence the equipment was found to be more effective in terms of accuracy and completeness of data as compared to previous device and hence accepted. CL #02 closed.	
Acceptance and Close out by Lead Assessor: Closed	**Date:** 03/03/2012

7. Annex 3: Statement of Competence

Statement of Competence

Name: Shivaji Chakraborty

Status

-	Lead Assessor	x	-	Expert	x
-	Assessor	x	-	Financial Expert	
-	Local Assessor	India	-	Technical Reviewer	

Scopes of Expertise

1. Energy Industries (renewable / non-renewable) **x**

Technical Area(s*): TA 1.2 Energy generation from renewable energy sources*

2. Energy Distribution **x**

Technical Area(s*): TA 2.1 Electricity distribution*
TA 2.2 Heat distribution

3. Energy Demand **x**

Technical Area(s*): TA 3.1 Energy Demand*

4. Manufacturing

Technical Area(s*):*

5. Chemical Industry

Technical Area(s*):*

6. Construction

Technical Area(s*):*

7. Transport

Technical Area(s*):*

8. Mining/Mineral Production

Technical Area(s*):*

9. Metal Production

Technical Area(s*):*

10. Fugitive Emissions from Fuels (solid, oil and gas)

Technical Area(s*):*

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride

Technical Area(s*):*

12. Solvent Use

Technical Area(s*):*

13. Waste Handling and Disposal

Technical Area(s*):*

14. Afforestation and Reforestation

Technical Area(s*):*

15. Agriculture

Technical Area(s*):*

Approved Member of Staff by: Siddharth Yadav Date: 15/02/2012

Statement of Competence

Name: Cruz, Magdalena

Status

-	Lead Assessor		-	Expert	
-	Assessor		-	Financial Expert	
-	Local Assessor	Mexico	-	Technical Reviewer	

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)
Technical Area(s*):*

2. Energy Distribution
Technical Area(s*):*

3. Energy Demand
Technical Area(s*):*

4. Manufacturing
Technical Area(s*):*

5. Chemical Industry
Technical Area(s*):*

6. Construction
Technical Area(s*):*

7. Transport
Technical Area(s*):*

8. Mining/Mineral Production
Technical Area(s*):*

9. Metal Production
Technical Area(s*):*

10. Fugitive Emissions from Fuels (solid, oil and gas)
Technical Area(s*):*

11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride
Technical Area(s*):*

12. Solvent Use
Technical Area(s*):*

13. Waste Handling and Disposal
Technical Area(s*):*

14. Afforestation and Reforestation
Technical Area(s*):*

15. Agriculture
Technical Area(s*):*

Approved Member of Staff by: Siddharth Yadav Date: 05/02/2012

Statement of Competence

Name: Joe Sun

Status

-	Lead Assessor		-	Expert	
-	Assessor		-	Financial Expert	
-	Local Assessor		-	Technical Reviewer	x

Scopes of Expertise

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

Approved Member of Staff by: Siddharth Yadav Date: 15/02/2012

Statement of Competence

Name: Ramkrishna Patil

Status

-	Lead Assessor	x	-	Expert	x
-	Assessor	x	-	Financial Expert	
-	Local Assessor	India	-	Technical Reviewer	x

Scopes of Expertise

1. Energy Industries (renewable / non-renewable)	**x**
Technical Area(s): *TA 1.2 Energy generation from renewable energy sources*	
2. Energy Distribution	**x**
Technical Area(s): *TA 2.1 Electricity distribution* *TA 2.2 Heat distribution*	
3. Energy Demand	**x**
Technical Area(s): *TA 3.1 Energy Demand*	
4. Manufacturing	
Technical Area(s):	
5. Chemical Industry	
Technical Area(s):	
6. Construction	
Technical Area(s):	
7. Transport	
Technical Area(s):	
8. Mining/Mineral Production	
Technical Area(s):	
9. Metal Production	
Technical Area(s):	
10. Fugitive Emissions from Fuels (solid, oil and gas)	
Technical Area(s):	
11. Fugitive Emissions from Production and Consumption of Halocarbons and Sulphur Hexafluoride	
Technical Area(s):	
12. Solvent Use	
Technical Area(s):	
13. Waste Handling and Disposal	
Technical Area(s):	
14. Afforestation and Reforestation	
Technical Area(s):	
15. Agriculture	
Technical Area(s):	

Approved Member of Staff by: Siddharth Yadav Date: 22/02/2012