



Validation report form for post-registration changes for component project activities

(Version 02.0)

Complete this form in accordance with the instructions attached at the end of this form.

BASIC INFORMATION

Title and UNFCCC reference number of the component project activity (CPA)	Improved Cooking Stoves Programme in Burundi supported by Republic of Korea – CPA1 UNFCCC Ref. no. - 10474-P1-0001-CP1
Version number of the validation report	1.0
Completion date of the validation report	25/04/2020
Version number of PoA-DD and CPA-DD applicable to this validation report	PoA-DD version 1.2 CPA-DD version 1.3
Title and UNFCCC ref. no. of the registered PoA into which the CPA is included	Improved Cooking Stove Programme in Burundi supported by Republic of Korea UNFCCC Ref. no. - 10474 ¹
Type(s) of CPA PRCs	<input checked="" type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents <input type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of monitoring plan <input type="checkbox"/> Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents <input type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation activities
Coordinating/managing entity (CME)	ECOYEY CO., LTD
Host Parties	Burundi
Applied methodologies and standardized baselines	AMS-II.G. : “Energy efficiency measures in thermal applications of non-renewable biomass” (Version 10.0)
Mandatory sectoral scopes	Sectoral Scope 03: Energy Demand
Conditional sectoral scopes, if applicable	NA
Name and UNFCCC reference number of the DOE	LGAI Technological Center, S.A. (Applus+ Certification) UNFCCC Ref. No.: E-0032

¹ https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/U2ZYTF1EWXPBHK0069GCLNSDRIQ78A/view

**Name, position and signature of the approver
of the validation report**

Mr. Juan Sendín Caballero

Applus+ Certification Business Unit Managing Director

Signature:



SECTION A. Executive summary

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LGAI Technological Center, S.A. accredited DOE E-0032 (hereinafter referred to as *Applus+ Certification* or just the *DOE*) has been contracted by PoA CME *ECOYE CO., LTD* to undertake the independent verification of the registered CDM PoA titled “Improved Cooking Stove Programme in Burundi supported by Republic of Korea” (PoA ID: 10474) covering CPA 001 titled “*Improved Cooking Stoves Programme in Burundi supported by Republic of Korea – CPA1*”. The objectives of this verification are to verify and certify emission reductions reported for the specific Component Project Activity (CPA) for the monitoring period from 10/09/2019 - 15/09/2019 (first and last day included); and to verify that the data reported are complete and transparent.

While conducting the Verification, there has been determined the necessity of the Post-Registration Changes of type “Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents” as described in the proposed Monitoring Report version 1.1 dated on 14/04/2020^{12/} and the Final Verification and Certification Report version 1.0 dated on 25/04/2020^{11/}.

This report summarizes the findings of the validation of the Post Registration Changes, performed on the basis of UNFCCC criteria for CDM.

The scope of the validation of Post Registration Changes process is defined as a third-party independent and objective review and determination of compliance of the proposed changes in the Component Project Activity, limited to and against the criteria stated in Article 12 of the Kyoto Protocol, the CDM Modalities and Procedures as agreed in the Marrakech Accords and the relevant decisions by the CDM Executive Board, including the approved baseline and monitoring methodology AMS-II.G. : “Energy efficiency measures in thermal applications of non-renewable biomass” (Version 10.0)^{5/}, the latest version of the CDM Validation and Verification Standard for Programmes of Activities (VVS for PoAs version 02.0)^{1/}, the latest version of the CDM Project Standard for Programmes of Activities (PS for PoAs version 02.0)^{2/} and the latest version of the CDM Project Cycle Procedure for Programmes of Activities (PCP for PoAs version 02.0)^{3/}, as well as any other related methodological tools, guidelines and other regulatory documents adopted by the CMP or the Board.

The validation process takes as a basis the validated Programme Design Document (PoA-DD), version 1.2, dated 26/02/2019 and registered Component Project Activity Design Document (CPA-DD), version 1.3, dated 08/08/2019 (hereinafter referred to as PoA-DD^{9/} and CPA-DD^{10/}, and the corresponding CPA Monitoring Report version 1.1 dated on 14/04/2020^{12/}.

The validation team has, based on the requirements set up in the CDM Validation and Verification Standard for Programmes of Activities (VVS for PoAs version 02.0)^{1/}, evaluated the provided information focusing on the identification of significant risks and reliability of the proposed changes.

The validation is not meant to provide any consulting towards the CME or authorized participants. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the programme design.

The purpose of the CPA is to combat climate change and contribute to sustainable development of Burundi, by reducing non-renewable wood fuel consumption and greenhouse gas (GHG) emissions of household users in rural and/or peri-urban areas of Burundi by selling affordable Improved Cooking Stoves (ICSs) in replacement of traditional wood stoves.

In the baseline scenario, households continue to using non-renewable biomass in traditional cooking stoves. An ICS combusts wood fuel more efficiently, i.e. requires less firewood than a traditional stove. This reduces CO₂ emissions.

CPA001 thus aims to reduce non-renewable wood fuel consumption and greenhouse gas (GHG) emissions of households (hereafter also “end-users”) in the rural and peri-urban regions of Burundi.

The aim of the proposed Post Registration Changes of the type “Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents” is to temporarily deviate from the rules and requirements as set out in the registered monitoring

plan and the applied Standard for Sampling and Surveys version 08.0^{6/} in the Monitoring Report version 1.1 dated on 14/04/2020^{12/}.

The CME has been temporarily unable to monitor the included CPA in accordance with the sampling plan in the registered monitoring plan.

The validation team determines the conformity of the proposed changes to the Component Project Activity and its operation for monitoring in comparison with the related regulatory documents. Applus+ Certification has, by means of a desk review and an on-site visit, assessed that the assumptions, nature, extent and justification of the proposed temporary deviations are in compliance with the rules and requirements for this type of PRCs and that the CME has proposed adequately, measures to avoid overestimation of the claimed Emission Reductions in the Monitoring Report version 1.1 dated on 14/04/2020^{12/}.

It is the responsibility of Applus+ Certification to express an independent Validation opinion on the proposed temporary deviation and its impact on the calculation of GHG emission reductions for the CPA for this monitoring period based on the reported emission reductions in the Monitoring Report version 1.1 dated on 14/04/2020^{12/}.

The validation team has planned and performed the work to obtain the information and explanations that are considered necessary to provide sufficient evidence for it to give reasonable assurance that the amount of calculated GHG emission reductions for this monitoring period were not overestimated because of the temporarily inability of the CME to monitor the included CPAs in accordance with the monitoring plans in the included CPA-DDs, the applied methodologies, the applied standardized baselines or the other applied methodological regulatory documents.

SECTION B. Validation team, technical reviewer and approver

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B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)	Involvement in			
						Document review	On-site inspection	Interviews	Validation findings
1.	Lead Auditor Technical Expert (3.1)	OR	DAS	SUKANTA	Outsourced Entity (True Quality Certifications Pvt. Ltd.)	X	X	X	X

B.2. Technical reviewer and approver of the validation report on CPA PRCs

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of DOE or outsourced entity)
1.	Technical Reviewer Technical Expert (3.1)	EI	CORTÉS	MIGUEL ÁNGEL	Applus+ Certification
2.	Report Approver	IR	SENDÍN	JUAN	Applus+ Certification

SECTION C. Means of validation**C.1. Document review**

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Applus+ Certification has performed a Document Review (Desk Review) taking in consideration:

- A review of presented data and information.
- Cross-checks between the presented data and information provided in the PoA-DD / CPA-DD and information from other sources, including, but not limited to, the publicly available information in the UNFCCC.
- The sectoral and local expertise of the DOE at the time of reviewing the provided data and information.

The references of the reviewed documentation can be observed under the Appendix 3 of this report.

C.2. On-site inspection

Duration of on-site inspection: 28/11/2019 to 30/11/2019				
No.	Activity performed on-site	Site location	Date	Team member
1.	<p>The validation team conducted visits to the CPA implementation site to confirm the information and to resolve issues identified in the document review as a part of the verification process related with this PRC request.</p> <p>The activities performed on-site can be checked in the Final Verification and Certification Report version 1.0 dated on 25/04/2020^(11/) associated with this request for temporary deviations.</p>	<p>CPA Implementation site in Burundi</p> <p>See Final Verification and Certification Report version 1.0 dated on 25/04/2020^(11/) for more specific information.</p>	28/11/2019 to 30/11/2019	Mr. Sukanta Das

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mayr	Sebastian	AERA group	28/11/2019 to 30/11/2019	Suitability of the temporary deviations proposed and consistency of the justification provided, nature, extent and proposed measures to avoid ER calculations' overestimation.	Mr. Sukanta Das
2.	Ndizeye	Claver	OBEN	28/11/2019 to 30/11/2019		
3.	Mayr	Sebastian	AERA group	Full assessment process	Coordinator for communications and overall coordination during the assessment process	

C.4. Clarification requests, corrective action requests and forward action requests raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with CPA-DD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Corrections	-	-	-
Changes to the start date of the crediting period	-	-	-
Inclusion of monitoring plan	-	-	-
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	-	-	-
Changes to the project design	-	-	-
Changes specific to afforestation and reforestation activities	-	-	-
Others (please specify)	-	-	-
Total	00	00	00

SECTION D. Validation findings

D.1. Compliance with CPA-DD form

Means of validation	<p>The CME has proposed Post Registration Changes and the associated verification in a Monitoring Report. The type of the proposed Post Registration Changes are of type “Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents” as described in the proposed Monitoring Report version 1.1 dated on 14/04/2020^{12/} and the Final Verification and Certification Report version 1.0 dated on 25/04/2020^{11/}.</p> <p>As per the Project Cycle Procedure for Programmes of Activities version 02.0^{3/}, Paragraph 169 readed along with Paragraph 168 (a), for the type of proposed PRCs there is no need for the CME to prepare a revised CPA-DD, hence the requirement for which this section refers is not applicable to the proposed type of changes.</p>
Findings	No CAR/CL raised for this section.
Conclusion	The validation team concludes that the monitoring report provides all the information for the purpose of the proposed PRCs in accordance with the applicable regulatory documents, hence this is accepted by the DOE.

D.2. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents

Means of validation	<p>The CME proposes a temporary deviation from the registered monitoring plan and the applied Standard for Sampling and Surveys version 08.0^{6/} in the Monitoring Report version 1.1 dated on 14/04/2020^{12/}.</p> <p>The CME has been temporarily unable to monitor the included CPA in accordance with the sampling plan in the registered monitoring plan.</p> <p>The nature and extent of the temporary deviation is defined by the CME as a deviation from the sampling plan in section B.5.2 of the registered monitoring plan^{10/} in terms of:</p> <ul style="list-style-type: none"> i) Sampling frame for monitored parameter values, μ_y and $\eta_{new,i,j}$. <p>As per section A.2 of the registered CPA^{12/}, the geographical boundaries of the CPA comprise rural and/or peri-urban areas of the whole Republic of Burundi consisting of 18 administrative provinces. As per sampling plan, “the <i>target population</i> is the totality of ICSs (sampling unit) distributed” and “the <i>sampling frame</i> is the data on ICS sales entered and/or available in the CPA’s electronic database.”</p> <p>Furthermore, “due to the homogeneity requirement for grouping CPAs under one sampling plan, the sampling method is simple random sampling for all parameters monitored through sampling at all times.”</p> ii) Minimum sample size for monitored parameter values $p_{op_stoves,y}$, μ_y. <p>A sample size is calculated in order to meet reliability requirements. In general, if the sample size calculation returns a value of less than 30 samples, a minimum sample size of 30 is chosen when the parameter of interest is a proportion. Otherwise, calculated minimum sample sizes apply.</p>
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The CME arguments that as per current political tensions and security issues across the country especially in light of upcoming general elections on 20 May 2020 make extensive unauthorized travel to or crossing insafe/unauthorized areas interviewing household users temporarily risky / impossible, especially with individuals from abroad².

For the current monitoring period of 6 days, the CME has thus been unable to draw the sample of households to monitor parameter values $p_{op_stoves,y}$, μ_y and $\eta_{new,i,j}$, from the full sampling frame currently covering 7 provinces and to respect the minimum sample size of 30 for the monitored values of the proportions $p_{op_stoves,y}$ and μ_y .

The DOE after evaluation of the description of the nature and extent of the proposed temporary deviation considers is defined as per the requirements on the PS for PoA version 02.0^{02/} Paragraph 228.

Shall be noted that, during the assessment for verification^{11/}, the DOE has performed a site visit and sampling efforts also limited in nature and extent due to the circumstances described by the CME about the current safety situation in some of the provinces and areas in which the CPA is implemented. The DOE thus confirms, by the experience on the ground, that the current safety issues in some parts of the country as well as the general climate of tension that is present, makes not possible to perform a sampling effort as complete as desirable, preserving the security of the personnel involved in the same (for both DOE and CME personnel, most of all when foreigners are implicated in the process).

The proposed duration of the temporary deviation is from 10/09/2019 - 15/09/2019 (6 days), i.e. the current monitoring period.

The CME, in line with the requisites applicable as per PS for PoA version 02.0^{02/} Paragraph 228, has chosen the option stated in Paragraph 228 (a), this is, to propose alternative monitoring arrangements for the non-conforming monitoring period. The CME has applied the following alternative arrangements:

- i) For this monitoring period, the sampling frame for monitoring the parameter values $p_{op_stoves,y}$, μ_y and $\eta_{new,i,j}$, has been limited to the provinces of Bujumbura, Buzanza and Cibitoke, which are more peri-urban (safer) and involve less risks for traveling.
- ii) For this monitoring period, sample size for monitoring the parameter values $p_{op_stoves,y}$ and μ_y has been limited to 18 household users drawing randomly a sample of 6 households in each of the 3 provinces of the above mentioned sampling frame using excel's RAND function.

The DOE thus confirms that alternative monitoring arrangements have been put in place in line with the provisions in the PS for PoA version 02.0^{02/} Paragraph 228 (a).

² Cf. OSAC's "Burundi 2019 Crime & Safety Report" available at <https://www.osac.gov/Country/Burundi/Content/Detail/Report/b2893cfc-a67f-445e-a229-15f4aed057bf>
Several incidents in the second half of 2019 confirm the issue, the deterioration of the situation in the course of the second half of 2019 and the security measures applied:

a) <http://burundi-agnews.org/afrique/des-elements-armees-venus-du-rwanda-ont-attaque-le-burundi/>
b) <https://www.jeuneafrique.com/846420/politique/burundi-des-affrontements-entre-forces-de-securite-et-rebelles-font-plusieurs-morts/>
c) <https://www.africanews.com/2019/12/31/burundian-journalists-face-15-year-jail-term-for-breaching-state-security/>

The proposed conservative measures taken by the CME in order to avoid the appearance of an overestimation of the achieved Emission Reductions for this monitoring period are:

- i) Households in peri-urban areas are more likely to use charcoal instead of firewood (due to absence of trees/firewood and the use of "more modern" fuels in and around urban areas) resulting in a likely overestimation of accounted leakage emissions due to fuel switch to charcoal.

The DOE considers this as conservative in line with PS for PoA version 02.0^{02/} Paragraph 228 (a) as during the site visit the same has been checked by the DOE.

- ii) A discount factor of 20% has been applied to the already conservative value of 83.33% of p_{op_stoves} .

As per the monitoring survey and onsite visit 100% of household users indicated that the stove was operational and working. The value has been reduced to 83.33% due to the rigorous application of the provisions in section B.5.1 of the registered CPA-DD^{10/}, based on the following statement: *"In addition to operating status, if baseline stove is not included under baseline defined under the specific CPA, the new device is counted as not operating, i.e. no emission reductions are claimed."*

As a furthermore conservative provision, the same is applied to stoves for which incoherent information has been found between information in the user survey and the user database/sales agreement.

The DOE, by checking the calculations in the ER calculation sheet^{15/} in which the monitoring survey results are included, has been able to cross check that the statement has been applied in a conservative manner, resulting in a reduced value of 83.33% of the users.

Moreover, the CME has applied extra conservative measures by applying a discount factor of 20% to the measurement of the parameter p_{op_stoves} , resulting in a final value of 66.67%, which is the one used for ER final calculations for the current monitoring period.

This is considered as conservative in light of an average sales date of 26/01/2019 in the full sampling frame, which suggests a very high functionality and very low degradation of all distributed stoves at the end of the current monitoring period (first monitoring period from 10/09/2019 to 15/09/2019).

- iii) A discount of 20% has been applied for pre-project device use (3.61% instead of 3.01%) to determine parameter value μ_y .

The DOE, by checking the calculations in the ER calculation sheet^{15/} in which the monitoring survey results are included, has been able to cross check that the statement has been applied in a conservative manner applying a discount factor of 20% to the survey results for the parameter μ_y .

- iv) A discount of 20% has been applied to the monitored stove efficiency value $\eta_{new,y}$ (29.75%), which becomes 23.80%. The monitored value is already significantly lower than in tests carried out ex-ante on new stoves (32.10%).

The DOE, considering that the population of stoves is not being used for a long time, as has an average date of sales of 26/01/2019, being

	<p>the monitoring period in current assessment from 10/09/2019 to 15/09/2019, considers as conservative the measure taken to reduce the results of the efficiency tests (WBTs) with a 20% discount factor that makes the parameter $\eta_{\text{new},y}$ to be significantly lower (23.80%) than the expected value of ex-ante efficiency data (32.10%), around a 26% less efficiency considered within this monitoring period.</p> <p>Considering the: above nature, extent, proposed alternative arrangements (i.e. doing in any case a sampling effort); application of discount factors of a mean of 20% in all the affected parameters by the temporary deviation; being this monitoring period a period of only 6 days and being the stoves recently distributed (so the final population across the whole country can be considered as homogeneous); taking into account that the decrease on the ex-ante estimation of emission reductions in comparison with the achieved by applying this measures, represent around 90% of decrease; and finally given that the ex-post first calculation of emission reductions were 1,378 tCO₂e^{/12/} (MR in GSC), resulting then on a decrease of around 40% in comparison with the final value; the DOE considers that there is no risk of overestimating the emission reductions achieved for the current monitoring period and confirms its conservativeness and compliance with the provisions set out in the PS for PoA version 02.0^{02/} Paragraph 228 (a).</p>
Findings	No CAR/CL raised for this section.
Conclusion	The validation team concludes that the proposed Post Registration Changes of the type "Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents" are in line with the requirements in the PS for PoA version 02.0 Paragraph 228(a). The proposed PRCs are considered then in accordance with the applicable regulatory documents, hence this is accepted by the DOE.

D.3. Corrections

Means of validation	The proposed Post Registration Changes do not fall under this category.
Findings	The proposed Post Registration Changes do not fall under this category.
Conclusion	The proposed Post Registration Changes do not fall under this category.

D.4. Changes to the start date of the crediting period

Means of validation	The proposed Post Registration Changes do not fall under this category.
Findings	The proposed Post Registration Changes do not fall under this category.
Conclusion	The proposed Post Registration Changes do not fall under this category.

D.5. Inclusion of monitoring plan

Means of validation	The proposed Post Registration Changes do not fall under this category.
Findings	The proposed Post Registration Changes do not fall under this category.
Conclusion	The proposed Post Registration Changes do not fall under this category.

D.6. Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents

Means of validation	The proposed Post Registration Changes do not fall under this category.
Findings	The proposed Post Registration Changes do not fall under this category.
Conclusion	The proposed Post Registration Changes do not fall under this category.

D.7. Changes to the project design

Means of validation	The proposed Post Registration Changes do not fall under this category.
Findings	The proposed Post Registration Changes do not fall under this category.
Conclusion	The proposed Post Registration Changes do not fall under this category.

D.8. Changes specific to afforestation and reforestation activities

Means of validation	The proposed Post Registration Changes do not fall under this category.
Findings	The proposed Post Registration Changes do not fall under this category.
Conclusion	The proposed Post Registration Changes do not fall under this category.

SECTION E. Internal quality control

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As a final step for Validation, the final documentation, including the validation report, has to undergo an internal quality control by the Technical Reviewer(s) to be approved.

Details of the Technical Reviewer(s) are provided within the validation report in Section B.2. and Appendix 2 for further references of knowledge and capability to conduct the quality checking.

After the Technical Review process, the final documentation has to undergo a final quality checking process called Administrative Review, done by the Applus+ Certification Project Activity Manager and/or Technical Support.

For final approval, the final set of documents are prepared by the DOE's Technical Manager or its deputy and signed by the authorized signatory of the DOE.

In case any of the persons performing this final internal quality control approval process has acted as a part of the Assessment Team or Technical Review team, the approval can only be given by DOE's personnel who is not part of those teams.

If the final set of documents has been satisfactorily approved, the Request is submitted to the UNFCCC CDM EB along with the relevant documents.

SECTION F. Validation opinion

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LGAI Technological Center, S.A. (Applus+ Certification) DOE E-0032 has performed the Validation of Post Registration Changes for the *Improved Cooking Stoves Programme in Burundi supported by Republic of Korea – CPA1 UNFCCC Ref. no. - 10474-P1-0001-CP1*. The Validation of Post Registration Changes has been performed in line with the basis set out in the rules and requirements defined by the UNFCCC CDM for Programmes of Activities.

The review of the necessary supporting documentation, the publicly available information as well as any other external source used for cross-checking requirements and subsequent follow-up actions (include site visit, Skype calls and interviews), have provided Applus+ Certification with sufficient evidences to determine the compliance with the applicable requirements.

The proposed changes as described in the proposed Monitoring Report version 1.1 dated on 14/04/2020 and the DOE's related Final Verification and Certification Report version 1.0 dated on 25/04/2020 comply with all the applicable requirements set out in VVS for PoA version 02.0, PS for PoA version 02.0 and PCP for PoA version 02.0 and correctly applies the appropriate measures to avoid the overestimation of the Emission Reductions due to the inability of monitoring as per the registered monitoring plan in the CPA-DD as well as all the applicable requirements set out in any other applicable regulatory document.

In DOE's opinion, the CPA-DD meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria.

The CPA-DD, hence, is recommended by Applus+ Certification for registration of its Post Registration Changes within the UNFCCC CDM.

Appendix 1. Abbreviations

Abbreviations	Full texts
Applus+ Certification	LGAI Technological Center, S.A. (Applus+ Certification) DOE E-0032
AS	Accreditation Standard
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CL	Clarification request
CME	Coordinating/Managing Entity
CMP	The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
CPA	Component Project Activity
CPA-DD	Component Project Activity Design Document
DOE	Designated Operational Entity
EB	Executive Board
EI	External Individual
FAR	Forward Action Request
GHG	Greenhouse gas(es)
HQ	Headquarters (Applus+ Certification)
IR	Internal Resource
OE	Outsourced Entity
PCP for PoA	Project Cycle Procedure for Programmes of Activities
PoA-DD	Programme of Activities Design Document
PRC	Post Registration Changes
PS for PoA	Project Standard for Programmes of Activities
UNFCCC	United Nations Framework Convention on Climate Change
VVS for PoA	Validation and Verification Standard for Programmes of Activities

Appendix 2. Competence of team members and technical reviewers

According to the applicable sectoral scope / technical area and experience in the sectoral or national business environment, Applus+ Certification has composed an assessment team in compliance with the Contract Review and Assessment Team appointment rules in the internal Quality Management System of Applus+ Certification as well as in compliance with the applicable requirements in the Accreditation Standard.

The composition of the Assessment Team has been approved by Applus+ Certification during the Contract Review process ensuring that the required skills and capabilities are covered.

The qualification levels for Assessment Team members that are assigned by aforementioned appointment rules are as presented below:

- Lead Auditor (LA).
- Auditor (A).
- Technical Expert (TE).
- Technical Reviewer (TR).
- Any of the above mentioned roles in training (iT, e.g. AiT for auditor in training).

The Sectoral Scope / Technical Area required knowledge linked to the applied methodology(ies) is covered by the Assessment Team as shown below:

Name	Role	SS/TA Knowledge	Financial Expertise	Attendance to on-site visit
Mr. Sukanta Das	LA / TE	YES (3.1)	n/a	YES
Mr. Miguel A. Cortés	TR /TE	YES (3.1)	n/a	n/a

A brief Curriculum Vitae (CV) of the Assessment Team members is provided below:

Mr. Sukanta Das Mr. Sukanta DAS, has done M. SC in (Electronics and Photonics) and M. Tech in (Energy technology) from Tezpur Central University/ Indian Institute of technology Bombay in India. He is a certified lead auditor for ISO 14001 EMS LA and ISO 9001 QMS LA from InternationalSC App for Certified Auditors (IRCA) and Certified Lean Management practitioner from Quality Council of India (QCI). He has more than (11) years of working experience at TUV NoRD/ Re-consult/CRA/APPLUS certifications under various categories of projects stating from Renewable to waste to supercritical projects. He was JI/ CDM Lead Assessor in TUV NoRD and was involved in more than 100 CDM validation and verifications activities in Gold Standard, VCS, CDM projects as a team leader/technical reviewer / validator / verifier covering the sectoral scope 1, 13 technical areas 1.2/1.1/13.1. Currently he is associated with True Quality Certifications Private Limited and is empanelled with APPLUS certification to carry out GHG audit.

Mr. Miguel A. Cortés Mr. Miguel A. Cortés holds a Bachelor's Science Degree on Civil and Environmental Engineering, being specialized on Hydric Resources.

He has worked as CDM/VCS/GS and environmental consultant for different industries of multidisciplinary sectors world widely.

Mr. Miguel Cortés counts with several years of GHG assessment experience, working and being qualified as Lead Auditor and Technical Reviewer for different DOEs world widely, as well as has been part of Gold Standard expert's committees.

Furthermore, he has performed his professional GHG assessment portfolio career worldwide and focusing in Latin America, developing assessments for projects in Argentina, Mexico, Panama, Colombia and Chile, among others

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UNFCCC	CDM Validation and Verification Standard for Programmes of Activities version 02.0	29/11/2018	Other
2	UNFCCC	CDM Project Standard for Programmes of Activities version 02.0	29/11/2018	Other
3	UNFCCC	CDM Project Cycle Procedure for Programmes of Activities version 02.0	29/11/2018	Other
4	UNFCCC	CDM Accreditation Standard version 07.0	01/03/2018	Other
5	UNFCCC	AMS-II.G. Energy efficiency measures in thermal applications of non-renewable biomass (Version 10.0)	31/08/2018	Other
6	UNFCCC	Standard: Sampling and surveys for CDM project activities and programme of activities (version 08.0)	28/11/2019	Other
7	UNFCCC	Guidelines for sampling and surveys for CDM project activities and programme of activities (version 04.0)	16/10/2015	Other
8	UNFCCC	CDM-PoA-MR-FORM Monitoring report form for CDM programme of activities (version 03.0)	31/05/2019	Other
9	CME	Registered PoA-DD version 1.2	26/02/2019	Other
10	CME	Registered CPA-DD version 1.3	08/08/2019	Other
11	DOE	Final Verification and Certification Report version 1.0	25/04/2020	Other
12	CME	Monitoring Report version 01 Monitoring report version 1.1	31/10/2019 14/04/2020	CME
13	CME	Monitoring Survey- 2019	-	CME
14	CME	WBT test reports dated 2019	-	CME
15	CME	ER Calculations _ver02	03/04/2020	CME

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. CLs from this validation

CL ID	xx	Section no.		Date: DD/MM/YYYY
Description of CL				
CME's response				Date: DD/MM/YYYY
Documentation provided by CME				
DOE assessment				Date: DD/MM/YYYY

Table 2. CARs from this validation

CAR ID	xx	Section no.		Date: DD/MM/YYYY
Description of CAR				
CME's response				Date: DD/MM/YYYY
Documentation provided by CME				
DOE assessment				Date: DD/MM/YYYY

Table 3. FARs from this validation

FAR ID	xx	Section no.		Date: DD/MM/YYYY
Description of FAR				
CME's response				Date: DD/MM/YYYY
Documentation provided by CME				
DOE assessment				Date: DD/MM/YYYY

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
02.0	31 May 2019	Revision to: <ul style="list-style-type: none">• Ensure consistency with version 02.0 of the “CDM validation and verification standard for programmes of activities” (CDM-EB93-A08-STAN);• Make editorial improvements.
01.0	29 December 2017	Initial publication.

Decision Class: Regulatory
Document Type: Form
Business Function: Registration
Keywords: post-registration change, component project activity, validation report
