



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

(Version 02.0)

BASIC INFORMATION

Title and UNFCCC reference number of the component project activity (CPA)	CPA No. 03: Improved Cookstoves in Pemba (Mozambique) UNFCCC Ref.No. 9981-P1-0003-CP1
Version number of the validation report	1.0
Completion date of the validation report	22/05/2022
Version number of PoA-DD and CPA-DD applicable to this validation report	PoA-DD, Version 09 CPA-DD, version 04
Title and UNFCCC ref. no. of the registered PoA into which the CPA is included	Domestic Cooking Stoves substitution programme in Mozambique
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)	Fondazione AVSI
Host Parties	The Republic of Mozambique
Applied methodologies and standardized baselines	AMS-II.G. Energy efficiency measures in thermal applications of non-renewable biomass (Version 05.0)
Mandatory sectoral scopes	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
Name, position and signature of the approver of the validation report	Mr. Agustín Calle de Miguel Applus+ Certification CDM Technical Manager Signature:

SECTION A. Executive summary

LGAI Technological Center, S.A. accredited DOE E-0032 (hereinafter referred to as Applus+ Certification or just the DOE) has been contracted by PoA's CME Fondazione AVSI to undertake the independent verification of the registered CDM PoA titled "Domestic Cooking Stoves substitution programme in Mozambique" (PoA ID: 9981) covering title "CPA No.03: Improved Cookstoves in Pemba (Mozambique)". 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 01/01/2019 to 31/12/2020 (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 other methodological regulatory documents" as proposed in the Monitoring Report version 04 dated on 04/05/2022^{/12/} and the Final Verification and Certification Report version 03 dated on 22/05/2022^{/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 05.0)^{/5/}, the latest version of the CDM Validation and Verification Standard for Programmes of Activities (VVS for PoAs version 03.0)^{/1/}, the latest version of the CDM Project Standard for Programmes of Activities (PS for PoAs version 03.0)^{/2/} and the latest version of the CDM Project Cycle Procedure for Programmes of Activities (PCP for PoAs version 03.0)^{/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)^{/9/}, version 09, dated 22/09/2020 and registered Component Project Activity Design Document (CPA-DD)^{/10/}, version 04, dated 03/12/2020 (hereinafter referred to as PoA-DD^{/9/} and CPA-DD^{/10/}, and the corresponding CPA Monitoring Report version 04 dated on 04/05/2022^{/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 03.0)^{/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 improve energy efficiency by substituting inefficient traditional cookstoves with more effective ones and at the same improving the conditions of the local population living in the poor settlements of the city of Pemba in Mozambique.

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.

CPA No.03, thus aims to reduce non-renewable wood fuel consumption and greenhouse gas (GHG) emissions of households (hereafter also "end-users") of the local population living in the poor settlements of the city of Pemba in Mozambique.

The aim of the proposed Post Registration Changes of the type “Temporary deviations from the 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 09.0^{/6/} in the Monitoring Report version 04 dated on 04/05/2022^{/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 04 dated on 04/05/2022^{/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 04 dated on 04/05/2022^{/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.	Team Leader Technical Expert (3.1)	OR	Singh	Jitendra Mohan	Outsourced Entity (True Quality Certifications Pvt. Ltd.)	Yes	NA	Yes	Yes
2.	Auditor (Verifier) Technical Expert (3.1)	OR	Kumar	Pankaj	Outsourced Entity (True Quality Certifications Pvt. Ltd.)	Yes	NA	Yes	Yes

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	CORTES	MIGUEL ANGEL	Applus + Certification
2.	Approver	IR	CALLE	AGUSTÍN	Applus+ Certification

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

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 remote audit: N/A				
No.	Activity performed on-site	Site location	Date	Team member
1.	N/A	N/A	N/A	N/A

The proposed changes (temporary deviation) have been opted by the CME based on the Request for issuance related to the PoA 9981 - info and reporting check incomplete.

Applus+ Certification has found that the onsite inspection is not mandatory and not required due to the nature of the proposed changes to be conducted as per the following criteria:

- According to the VVS for PoAs version 03.0 Paras 247 to 251, the DOE determines that the changes are of the type *“Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents”*.
- According to the VVS for PoAs version 03.0 Para 277, the DOE determines that the changes are not under the scope of the Paras 272 – 276, also not actual changes, hence the DOE finds there is no requirement to perform an onsite inspection given the type of proposed changes.
- According to the VVS for PoAs version 03.0 Para 278 (which makes reference to Paras 179 and 180), the DOE finds that, apart from the changes are not of the type *“Changes to the programme or project design”* there is no situation for these proposed changes on the PoA that makes the onsite visit mandatory, hence the DOE considers the inspection as optional and has determined alternative methods for the Validation assessment.

Applus+ Certification has used the following alternative methods for the validation of the proposed changes:

- Email communication and calls with the CME representatives.
- Publicly available information of the PoA.
- Experience and knowledge of the PoA due to the previous Verification of the PoA and additional PRCs conducted by the DOE.
- Other interactions with the CME representatives (mails and document's sharing).

Applus+ Certification has found the CME representatives to be available and in possession of any knowledge and related evidence that the DOE needs to perform this Validation of temporary deviation assessment and considers such mean of validation enough to ensure the scope of the latter and its compliance with the CDM rules and requirements.

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mauno	Ulla	Senior Certification Manager, CarbonSink Group S.r.l.	08/02/2022	Suitability of the temporary deviations proposed and consistency of the justification provided, nature, extent and proposed measures to avoid ER calculations' overestimation.	Jitendra Mohan Singh (Lead Auditor)
2.	Persia	Gianluca	Junior Climate Project Officer, CarbonSink Group S.r.l.	09/02/2022 23/02/2022		Pankaj Kumar (Auditor)

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 other methodological regulatory documents" as described in the proposed Monitoring Report version 04, dated on 04/05/2022^{12/} and the Final Verification and Certification Report version 03, dated on 22/05/2022^{11/}.</p> <p>In accordance with the paragraph 171, read along with paragraph 170(a) of the Project Cycle Procedure for Programmes of Activities version 03.0^{3/}, 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 temporary deviation (PRC) 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>CME has proposes a temporary deviation from the registered monitoring plan and the applied Standard for Sampling and Surveys,Version 09.0^{6/} in the monitoring report version 04 dated on 04/05/2022^{12/}. The temporary deviation for application of conservative values to estimate of Usage Rate (Please refer Section E.2 of revised MR) of the Usage Rate of technologies belonging to age-group 2 (Vintage 2) was performed applying the lower bound of the 95% confidence level. This approach has bee justified by CME through a temporary deviation as follows:</p> <p>As outlined in sub para (b) (i). a of paragraph 18 of the applied CDM Standard “Sampling and surveys for CDM project activities and programmes of activities”,version 09.0^{6/}, in case of failure to achieve the minimum levels of precision within the quantitative estimate of a given parameter, PP can apply a conservative value equal to the upper or lower bound (what is more conservative) of the 95 per cent confidence interval.</p> <p>Although per paragraph 18(c) of the Standard, this specific condition is applicable only within the first two years of the crediting period, whereas the current Monitoring Period exceeds the specified timeframe. Other ways to perform parameters estimates and deal with failure to achieve reliability are mentioned in CDM Guideline “Sampling and surveys for CDM project activities and programmes of activities” Version 04.0^{7/} Appendix 4 “Best-practice examples for reliability calculations”, section 6, par. 55. Their applicability to the specific case of the Usage rate of Vintage 2 for this CPA is justified as follows:</p>			
	Reference	Description	Applicability for CPA 9981-0002	Justification
	CDM-EB67-A06-GUID, v 4.0 Appendix 4, section 6.4	Analysis approach 1: Scrutinize the raw data	N.A.	The specific parameter is expressed as a percentage; hence it is impossible to scrutinizie data distribution.
	CDM-EB67-A06-GUID, v 4.0 Appendix 4, section 6.5	Analysis approach 2(a): Scrutinize the summary statistics	N.A.	The specific parameter is expressed as a percentage; hence it is impossible to scrutinizie data distribution.
	CDM-EB67-A06-GUID, v 4.0 Appendix 4, section 6.6	Analysis approach 2(b): Post-stratification	N.A.	Data collection was performed at the maximum level of stratification i.e. age-groupsas evident by sample survey for usage rate. There is no further stratification applicable i.e. not spital nor temporal e.g. age-wise groups were all divided and spatial variability is not consistent since

				the baseline is unique for all the project area.
	CDM-EB67-A06-GUID, v 4.0 Appendix 4, section 6.7	Analysis approach 3: Take an additional sample	N.A.	Data collected after the monitored period shall not be included in ER estimates for issuance of CERs as they would severely underestimate project impacts. Lifetime and/or efficiency of the distributed devices is limited as well as their usage rate after many years from the project kick-off. Any additional sample taken in 2022 would under estimate the Usage Rate applied in 2019-2020.
<p>None of the alternative approaches presented in the applied guidelines is applicable for the CPA. Therefore, CME opts to request a temporary deviation from the regulatory documents following the guidance as stated in the footnote of paragraph 56, Appendix 4 of CDM Guideline "Sampling and surveys for CDM project activities and programmes of activities" ver 4.0^{7/} in order to apply the lower bound of the 95 percent confidence interval to the estimation of the Usage Rate of technologies grouped under Vintage 2. This approach is justified through a regulatory document temporary deviation.</p> <p>The CME has adopted a conservative approach justifying the decision by taking a temporary deviation from the regulatory documents as per the paragraph 227 of the CDM project standard for PoA, version 03.0 wherein CDM PS for PoA proposed two alternatives for the regulatory document temporary deviation for conservative approach as follows:</p> <p>a) "Alternative monitoring arrangement for the non-conforming monitoring period. In this case, the coordinating/managing entity shall apply conservative assumptions or discount factors to the calculations to the extent required to ensure that GHG emission reductions or net anthropogenic GHG removals will not be over-estimated as a result of the deviation; or</p> <p>(b) Apply the following most conservative values approach when alternative monitoring arrangements are not proposed:</p> <p>(i) Apply zero for baseline GHG emissions for the entire non-conforming monitoring period; and/or</p> <p>(ii) Apply the values assuming that the source of GHG emissions is operated at the maximum capacity for the entire non-conforming monitoring period. In the case of project GHG emissions related to the consumption of electricity, add 10 per cent to account for transmission and distribution losses</p> <p>Most conservative approaches would consider project impacts for technology of age-group 2 to be negligible and, in presence of the proposed alternative arrangement (a), shall not be applied to the current monitoring period. Hence, Hence, CME is applying option (a) to the current Monitoring Period impacts estimate.</p> <p>Therefore, the requested regulatory document deviation has been considered conservative and no overestimated, further the requested deviation applied only for the monitoring period covered under this monitoring report i.e. 01/01/2019 to 31/12/2020 and is demonstrated to be compliant with all the above-mentioned</p>				

	CDM Standard requirements. The validation team concludes that the proposed Post Registration Changes of the type “temporary deviations from other methodological regulatory documents” are in line with the requirements in the PS for PoA version 03.0 Paragraph 227(a). Hence, proposed PRCs are considered in accordance with the applicable regulatory documents, hence this is accepted by the DOE.
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 other methodological regulatory documents” are in line with the requirements in the PS for PoA version 03.0 Paragraph 227(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 may 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 CPA No.03: CPA No. 03: Improved Cookstoves in Pemba (Mozambique) (UNFCCC Ref.No. 9981-P1-0003-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 publically available information as well as any other external sources used for cross checking requirements and subsequent follow-up actions (include interview through ICT tools" MS Team and email communication), 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 04 dated on 04/05/2022 and the DOE's related Final Verification and Certification Report version 03 dated on 22/05/2022 comply with all the applicable requirements set out in VVS for PoA version 03.0, PS for PoA version 03.0 and PCP for PoA version 03.0 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 temporary deviation (post registration changes) proposed in monitoring report, version 04 dated on 04/05/2022, 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
KPT	Kitchen Performance Test
MP	Monitoring Plan
MR	Monitoring Report
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
Jitendra Mohan Singh	LA/TE	YES(3.1)	n/a	NO
Mr. Pankaj Kumar	A / TE	YES (3.1)	n/a	NO
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. Jitendra Mohan Singh	Jitendra Mohan Singh has done Advanced MSc in Sustainable Energy Systems and Management from International Institute of Management, University of Flensburg, Germany and B.Tech. in Agricultural Engineering from Allahabad University, India. He has more than (18) years of working experience in different organizations like IARI, IIT Delhi, ICAR, IRADe, CAPART, SMEC and Perenia Carbon and M B Power (Madhya Pradesh) Ltd. in the area of Agriculture, Energy & Environment and Climate Change. He also worked on contract basis (adhoc) as a RIT expert in UNFCCC from 2010 to 2013. Jitendra is accredited Lead Auditor, validator, Verifier and Technical Expert for Sectoral Scope/Technical Area – 1.1 & 3.1 by UNFCCC DoE (Designated Operational Entity), APPLUS+ Certification, Spain and Currently. he is empanelled with Applus+ Certification since 2020 and has been involved Verifications of PAs as Lead Auditor and Technical Expert for Renewable and non-Renewable as well as Energy Demand.
Mr. Pankaj Kumar	Mr. Pankaj Kumar worked as team leader – Bihar for South Asia Climate Proofing and Growth Development(CPGD) – Climate Change Innovation Programme (CCIP) supported by DFID that seeks to mainstream climate change resilience into planning and budgeting at the national and sub-national level in India, Pakistan, Nepal, and Afghanistan. Pankaj Kumar has worked previously with IL&FS Infrastructure Development Corporation and BUIDCO(Bihar Urban Infrastructure Development Corporation), Govt. of Bihar as Environmental

Specialist for WB & ADB funded projects. Prior to this, he worked with Carbon Check (UNFCCC accredited DoE), Johannesburg, RSA as Team Leader for validation, verification. He has extensive experience in the Renewable, Waste Management and Energy Demand Scopes of UNFCCC CDM and has done more than 100 Validations and Verifications of PAs and PoAs as Team Leader, Technical Expert and Technical Reviewer, mainly in Africa (including PoAs in Mozambique) and Asia regions. Pankaj is accredited Lead Auditor, Validator, Verifier and Technical Expert for Sectoral Scope/Technical Area – 1.1, 1.2, 3.1 & 13.1 by UNFCCC DoE (Designated Operational Entity), APPLUS, Spain. He is also member of task force on climate change & human health, Health Department, GoB.

He is an experienced, qualified and result oriented Environment Professional having more than 14 yrs. of relevant experience in Climate Change (Mitigation & Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Validation and Verification of GHG project under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He provides technical support for environmental investigative, consultative and remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon foot printing.

Pankaj Kumar is Masters in Environment Management from Forest Research Institute (University), I.C.F.R.E, Dehradun, which is Centre of Excellence in South East Asia for Forestry education & research and PGDEL from National Law School of India University, Bangalore (India)..

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 03.0	09/09/2021	Other
2	UNFCCC	CDM Project Standard for Programmes of Activities version 03.0	09/09/2021	Other
3	UNFCCC	CDM Project Cycle Procedure for Programmes of Activities version 03.0)	09/09/2021	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 05.0)	23/11/2012	Other
6	UNFCCC	Standard: Sampling and surveys for CDM project activities and programme of activities (version 09.0)	27/05/2021	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 05.0)	08/10/2021	Other
9	CME	Registered PoA-DD version 09	22/09/2020	Other
10	CME	Registered CPA-DD version 04 applicable to this MP).	03/12/2020	Other
11	DOE	Final Verification Report Version 03	22/05/2022	Other
12	CME	Monitoring Report version 01 (Initial) Monitoring Report version 03 Final monitoring report version 04 (with PRC)	30/06/2019 13/10/2021 04/05/2022	CME
13	CME	9981-0003_Stove Selling Database _Vintage 2 (2017) 9981-0003_Stove Selling Database _Vintage 3 (2018-2019)	-	CME
14	CME	9981-0003_Usage Survey Database 2019 9981-0003_Usage Survey Database 2019 _V2	-	CME
15	CME	KPT reports dated 2019 KPT Report dated 2020	-	CME
16	CME	User Agreements	-	CME
25	CME	Telephonic/email conversation	-	CME

		with CME		
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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				
NA				
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				
NA				
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				
NA				
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
