



**Validation report form for post-registration changes for
CDM project activities
(Version 03.0)**


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

BASIC INFORMATION

Title and UNFCCC reference number of the project activity	BQS improved cookstoves for Burundi's schools – UNFCCC No. 9791 ¹
Process track	<input type="checkbox"/> Prior approval <input checked="" type="checkbox"/> Issuance <input type="checkbox"/> Renewal of crediting period
Version number of the validation report	01.0
Completion date of the validation report	23/09/2020
Type(s) of PRCs	<input type="checkbox"/> Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents ² <input checked="" type="checkbox"/> Corrections <input type="checkbox"/> Changes to the start date of the crediting period <input type="checkbox"/> Inclusion of a monitoring plan <input checked="" 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 checked="" type="checkbox"/> Changes to the project design <input type="checkbox"/> Changes specific to afforestation and reforestation project activities
Version number of PDD to which this report applies	2.0
Project participants	Burundi Quality Stoves S.A. Shell Trading International Limited
Host Party	Burundi
Applied methodologies and standardized baselines	AMS-I.E – “Switch from non-renewable biomass for thermal applications by the user” – Version 05.0
Mandatory sectoral scopes	1. Energy industries (renewable/ non-renewable sources)
Conditional sectoral scopes, if applicable	N/A
Name and UNFCCC reference number of	LGAI Technological Center, S.A. (Applus+ Certification) UNFCCC Ref. No.: E-0032

¹ <https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1385004301.04/view>

² Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

the DOE	
Name, position and signature of the approver of the validation report	Mr. Juan Sendín Caballero <i>Applus+ Certification Business Unit Managing Director</i> Signature: 

SECTION A. Executive summary

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The aim of the small scale (SSC) *BQS improved cookstoves for Burundi's schools* is:

1. Distributing institutional improved cookstoves (IICS) in schools of Burundi to replace currently used old masonry stoves and open fire three-stone system (and traditional stoves); and
2. Switching from non-renewably logged trees to a sustainable energy supply: briquettes made of renewable biomass waste.

The PA is confirmed to be a voluntary action by the Project Participants (hereinafter referred to as PPs).

Compared to the currently used three-stone fires or traditional stoves, the advanced technology of IICS allows quicker heating-up, longer cooking and heat retaining with less fuel wood as well as lower combustion fumes. It results in saving wood-fuel and associated expenses.

Along with the diffusion of such a stove to replace currently inefficient cooking systems, a renewable biomass supply-chain has been set up, by sourcing unutilized biomass residues to produce renewable biomass briquettes and market it to the participating schools in replacement of their non-renewable wood fuel.

The currently registered PDD^{/09/} version 1.7 dated on 27/02/2014 shows that the initially considered ICS designed by the Turkish company SOBAH (indicative choice only), has finally not been selected for design and price reasons. Also, no masonry stoves have been refurbished and the schools affected by the PA have been not only boarding schools. These situations are considered *inter alia* in this Validation of PRC Report and, as well as the rest of the changes applied (described along this Validation Report), have no impact on the following:

- Material impact on the applicability of the applied methodologies or the other applied methodological regulatory documents, or the accuracy and completeness of the monitoring;
- The applicability and application of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents with which the project activity has been registered;
- The additionality of the project activity; and
- The scale of the project activity.

Hence, it is concluded that the Post-Registration Change (PRC) is allowed to be submitted along with the Request for Issuance in the Issuance Track as stated in the CDM Project Standard for Project Activities (PS for PAs^{/02/} version 02.0) Appendix 1.

Validation of PRC Scope:

LGAI Technological Center, S.A., accredited DOE E-0032 (hereinafter referred to as *Applus+ Certification* or just the *DOE*), has been contracted by the PA's PP *Burundi Quality Stoves S.A.*, to conduct the Validation of Post Registration Changes (PRC) to the registered SSC PA 9791 *BQS improved cookstoves for Burundi's schools*.

The proposed PRCs are of the type of: Corrections, Permanent changes to the registered monitoring plan and Changes to the project design.

The scope of the validation process is defined as a third-party independent and objective review of the Project Design Document (PDD) in which changes have been applied, 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-I.E "Switch from non-renewable

biomass for thermal applications by the user” (Version 05.0)^{/05/}, the latest version of the CDM Validation and Verification Standard for Project Activities (VVS for PAs^{/01/} version 02.0), the latest version of the CDM Project Standard for Project Activities (PS for PAs^{/02/} version 02.0) and the latest version of the CDM Project Cycle Procedure for Project Activities (PCP for PAs^{/03/} version 02.0), as well as any other related methodological tools, guidelines and other regulatory documents adopted by the CMP or the Board.

The validation is not meant to provide any consulting towards the PPs. However, stated requests for clarifications and/or corrective actions may have provided input for improvement of the PDD or its related documents.

Validation of PRC Process:

The project’s assessment has been undertaken by the Applus+ Certification’s assigned Validation Team using standard auditing techniques to determine whether the programme meets the applicable CDM rules and requirements, including those specified in the CDM Project Standard for Project Activities (PS for PAs^{/02/} version 02.0), the selected methodologies^{/05/}, the selected standardized baselines (if any) and any other standards, methodologies, methodological tools and guidelines applied in accordance with the selected (applied) methodologies (i.e. other regulatory documents).

The Validation Team has assessed the accuracy, conservativeness, relevance, completeness, consistency and transparency of the information provided by the PP and determined whether such information is reliable and credible based on the above mentioned rules and requirements.

Before the Validation begins, the DOE selects and appoints a Validation Team in compliance with the latest version of the CDM Accreditation Standard (CDM AS^{/04/} version 07.0) to safeguard the impartiality and with the rules and requirements to perform Validation and Verification-Certification processes.

During the Contract Review stage, the DOE ensures the selected Validation Team covers the Technical Knowledge of the Sectoral Scope/Technical Area applicable to the assessment and the relevant experience and capability to evaluate the information provided by the PP against the aforementioned criteria.

Once the Validation of PRC process has commenced, the members of the Validation Team have carried out the following steps:

1. A Desk Review of the revised PDD and related documents.
2. Follow-up interviews with the project’s stakeholders.
3. Raise and resolution of outstanding issues (if any) and issuance of a Draft Validation of PRC Report and a Final Validation of PRC Report and Validation of PRC opinion.
4. Technical Review of the prepared report and related documentation by independent technical reviewer(s).
5. Internal quality check by the Applus+ Certification HQ personnel before the final issuance of the definitive set of documents for being submitted to the UNFCCC.

In order to ensure transparency and impartiality all the assumptions and asseverations shall be clear and objective and the evidences serving as a basis for the latter shall be referenced.

Applus+ Certification has checked all the necessary aspects of this validation process by using customized checklists or similar techniques that demonstrate transparently the criteria of the assessment team and the results of the assessment process.

Conclusion:

Applus+ Certification confirms and concludes, based on objective and sufficient evidences, that the revised PDD^{/10/} version 2.0 dated on 21/09/2020 meets all the relevant criteria mentioned above for the request for Post Registration Changes in Issuance Track of the type: Corrections, Permanent changes to the registered monitoring plan and Changes to the project design; as defined in the VVS for PAs^{/01/} version 02.0.

Applus+ Certification hence recommends the registration of the Post Registration Changes in the PDD under the Issuance Track.

The assessment asseverations that evidence that the proposed changes are in compliance with the applicable rules and requirements are set out below within this Validation Report.

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			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Lead Auditor Technical Expert in training (1.1)	IR	CALLE	AGUSTÍN	Applus+ Certification	Y	n/a	Y	Y
2.	Auditor (Validation) Technical Expert (1.1)	OR	DAS	SUKANTA	Outsourced Entity (True Quality Certifications Pvt. Ltd.)	Y	Y ³	Y	Y

B.2. Technical reviewer and approver of the validation report on 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 (1.1)	EI	XUE	DENNY	Applus+ Certification
2.	Report Approver	IR	SENDÍN	JUAN	Applus+ Certification

³ Site visit conducted for Verification for which this PRC Report is prepared in Issuance Track.

SECTION C. Means of validation

C.1. Desk/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 PDD^{/10/} and information from other sources, including, but not limited to, the publicly available information in the UNFCCC at the time of assessment performance.
- 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: <i>n/a</i>				
No.	Activity performed on-site	Site location	Date	Team member
1.	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>

No physical on-site inspection (with presence of the Applus+ Certification's Validation Team) was conducted as part of the performed validation assessment for Post-Registration Changes.

Based on the calls/interviews, PDD^{/10/} review, evidences provided as well as the performed site visit for the conduction of the Verification assessment to which this Validation Report for Post-Registration Changes is enclosed in Issuance Track, the Applus+ Certification's Validation Team has proceeded to conduct the assessment of the PRC without a specific site visit for such purpose. Validation team, in any case, has used the following alternative means for its assessment and to justify that they are sufficient for the purpose of validation:

- By taking into account the site visit performed for Verification^{/20/}.
- By review of PDD^{/10/}.
- By taking follow up actions by conducted interviews with project participants, to gather information about knowledge of PA design and current situation, among the other validation requirements, via Skype, telephonic calls and e-mail communications.
- Cross-checked evaluation under the scope of all information and references provided in PDD^{/10/}. Details of interviewees, topics covered and additional information presented in the below section "C.3 - Interviews".

Applus+ Certification has used the following methods for the validation of the proposed Post-Registration Changes on the PDD^{/10/} in compliance with the auditing techniques as defined in Section 7.1.3.1 of the VVS for PAs^{/01/} version 02.0 Paragraphs 28 and 29:

- Verification Report^{/20/} and Verification site visit evidences for this PA.
- Skype interviews, calls and communications with the project participant and/or its representatives.
- Publicly available information of the PA and the data contained in it.
- Other interactions with the PP's representatives (mails and documents sharing).

Applus+ Certification has found the PP's representatives to be available and in possession of any knowledge and related evidence that the DOE needs to perform this Validation of Post-Registration Changes assessment and considers such means of validation enough to ensure the scope of the latter and its compliance with the CDM rules and requirements.

A complete desk review of the submitted PDD^{/10/} and supportive evidences have been checked by the Validation team.

In addition, audit team has conducted Skype calls/interviews, telephonic calls and e-mail communications with the authorized participants and/or its representatives and any other required parties on different topics as mentioned under section C.3 of this report.

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Mayr	Sebastian	AERA Gorup (consultant and PP representative)	Along all the PRC assessment process in different communications. Particularly 23/09/2020 by Skype interviews.	Suitability of the proposed changes in the project design as well as the corrections and permanent changes in the monitoring plan and how the corrected information accurately reflects the actual project information and/or how the corrected information is in compliance with the regulatory documents and do not reduce the level of accuracy of the monitoring compared with the requirements contained in the registered monitoring plan or lead to an overestimation of the potentially achieved ERs.	Mr. Agustín Calle Mr. Sukanta Das

C.4. Sampling approach

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No sampling approach has been considered for this assessment.

C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents	-	-	-
Corrections	CL#1 CL#2	CAR#1 CAR#3	FAR#01
Changes to the start date of the crediting period	-	-	-
Inclusion of a monitoring plan	-	-	-

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Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents	-	CAR#4	-
Changes to the project design	-	CAR#2	-
Changes specific to afforestation and reforestation project activities	-	-	-
Others (please specify)	-	-	-
Total	02	04	01

SECTION D. Validation findings**D.1. Compliance with PDD form**

Means of validation	<p>As per PS for PAs^{/02/} version 02.0 Paragraph 229 the validation team appointed by Applus+ Certification checked if the PP used the latest valid version of the PDD form^{/08/} for completing the revised PDD^{/10/} version 2.0 dated on 21/09/2020. The PP has used the PDD form version 11.0^{/08/} for the revised PDD^{/10/} version 2.0 dated on 21/09/2020 for the purpose of the PRC, accordingly with CDM webpage, version 11.0 is the latest version of the template hence found acceptable by the DOE.</p> <p>The PP has sent to the DOE a clean and tracked changes versions of the PDD for the purpose of the assessment of PRC in line with VVS for PAs^{/01/} version 02.0 Paragraph 278.</p> <p>Hence the registered PDD template's version is different from the revised PDD template's version.</p> <p>The DOE has checked, by comparison between the registered version of the PDD^{/07/} version 1.7 dated on 27/02/2014 and the initial revised version of the new PDD^{/10/}, its intermediate and final versions^{/10/} if:</p> <ul style="list-style-type: none"> - The information presented is materially the same as in the registered version of the PDD. - The compliance of the revised PDD with the valid version of the PDD Form and instructions therein. <p>All the sections of the revised PDD^{/10/} version 2.0 dated on 21/09/2020 are checked for the compliance with the "Instructions for completing this form" mentioned as attachment to the PDD form version 11.0^{/08/}.</p> <p>In accordance to para 278 and 279 of the VVS for PAs^{/01/} version 02.0 and after the assessment team checking process and closure of related findings, the DOE can confirm that:</p> <ul style="list-style-type: none"> - The revised PDD^{/10/} version 2.0 dated on 21/09/2020 complies with the requirements set out in VVS for PAs^{/01/} version 02.0 Paragraphs 278 and 279. - The PP has used the latest available version of the PDD (i.e. version 11.0) template form^{/08/} with all applicable guidance for its completion being sufficiently and appropriately followed hence the assessment can conclude that revised PDD^{/10/} version 2.0 dated on 21/09/2020 complies with the requirements set out in Paragraph 229 of the PS for PAs^{/02/} (version 02.0). <p>In summary, the Applus+ Certification's validation team is able to confirm that information made available in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 is materially the same as in the registered version of the PDD^{/07/} version 1.7 dated on 27/02/2014 being sufficiently accurate, complete, and provides clear understanding of the CDM PA and the changes applied to its registered version.</p>
Findings	No findings have been raised for this Section.
Conclusion	After assessment team's check process and closure of related findings, the DOE can confirm that the revised PDD ^{/10/} version 2.0 dated on 21/09/2020 complies with the requirements set out in VVS for PAs ^{/01/} version 02.0 Paragraphs 278 and 279.

D.2. Temporary deviations from the registered monitoring plan, 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.3. Corrections

Means of validation	<p>The PP has presented the proposed corrections in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the assessment team has checked them for compliance evaluation as per PS for PAs^{/02/} version 02.0 Paragraph 232.</p> <p>The PP has proposed the following corrections:</p> <ul style="list-style-type: none"> - Removal of the “100%” goal of substitution of the non-renewable woody biomass by the project activity in a single phrase in page 2 of the PDD. <p>The same is considered acceptable by the DOE, as the PDD has clearly indicated that there could occur a period of briquettes shortage in which baseline woody fuel may be used and so, it is not logical to perceive the PA to achieve a 100% substitution as a realistic aim.</p> <ul style="list-style-type: none"> - Change in the abbreviation for the cookstoves, now expressed as IICS instead of ICS. <p>The same is considered acceptable by the DOE.</p> <ul style="list-style-type: none"> - Change in the expected number of IICS considered along the project, being now 1,372, which is the project size limit. <p>The same has been cross-checked in the ER Calculation Sheet^{/11/}, label “Project Size Limit” and found consistent.</p> <p>The SSC threshold is established at 45MW_{th}, being the thermal output of each IICS 32,78 kW_{th}, it results in a maximum number of 1,372 IICS.</p> <p>In any case, the PA currently counts with a deployed number of IICS of 940, being also the reported number of ex-ante IICS calculation, hence being in a total thermal output of 30,814 kW_{th}, then less than 45MW_{th}. The PA also remains additional as is <i>“solely composed of isolated units where the users of the technology/measure are households or communities or Small and Medium Enterprises (SMEs) and where the size of each unit is no larger than 5% of the small-scale CDM thresholds”</i> as detailed in the PDD, Section B.5. This is found acceptable by the DOE.</p> <ul style="list-style-type: none"> - Change in the estimated amount of emission reductions for the project activity, being now 182,061 tCO₂e/yr. instead of previous registered value of 67,347 tCO₂e/yr. <p>This is found acceptable by the DOE based on the assessment provided below in this Section.</p> <ul style="list-style-type: none"> - The text in Section A of the revised PDD^{/10/} version 2.0 dated on 21/09/2020 for the contribution to the sustainable development of the host country has been changed. <p>The DOE considers the proposed new text is materially contributing in same aspects than the original registered text for the sustainable development of the host country. The PP, however, has provided additional information to support the aim of the project activity to help the development of the host country.</p> <p>The DOE has cross-checked a report^{/13/} elaborated by the Burundi's Government and the UN in order to validate the PP statement establishing that more than 60% of the population in Burundi live below the national</p>
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poverty thresholds, founding it acceptable.

The DOE also cross-checked the WFP^{/14/} Report (07/2019), finding that the document mentions the PP is facilitating the provision of renewable biomass briquettes and that the deployed cookstoves contribute to decrease the smoke production during cooking.

The DOE has also confirmed through the site visit performed at the time of Verification^{/20/} that the rest of the contributions to the sustainable development of the host country are well-founded and appearing due to the implementation of the PA.

- Updated Section A.2. Location of the project activity.

The PP has updated the section with a table showing the currently participating schools and their locations, counting a total of 284 participating schools.

The same is found acceptable by the DOE based on the current situation of the PA and its implementation, along with the reported information in the ER Calculation Sheet^{/11/} and the observations made by the DOE through the Verification process^{/20/}.

The PP also establishes the option of new schools adhering to the project activity, for which the specific baseline will be compared with the ex-ante determined baseline, using the most conservative, which is found acceptable and conservative by the DOE.

Moreover, the PP has corrected the information about the location of the production sites for the briquettes (Jumbo briquetting machines). Current sites for operation of these machines are: two in the vicinity of Bujumbura (West) and one in Bubanza (North-West), that were installed at the time of performing the project's verification.

The PP also plans to install further briquetting machines depending on the project's necessities in locations such as Cankuzo (East) so as to adequately gather and process the surrounding biomass resources and supply the relevant schools with minimal transportation.

The DOE found this change acceptable.

- Updated Section A.3. Technologies/measures.

The PP has corrected the information regarding the type of IICS that is distributed under the PA in current situation and implementation status. The PP in the registered version of the PDD^{/09/} has estimated a type of stove that finally has not been adopted. Hence the PP has corrected such information to adapt the revised PDD^{/10/} version 2.0 dated on 21/09/2020 to the real circumstances of the PA.

Further assessment on this changes regarding the project design are discussed below in Section D.7. of this Validation Report.

- Updated Section A.6. History of the PA.

The PP has provided the information as requested by the new template used for the revised PDD^{/10/} version 2.0 dated on 21/09/2020 in this section, which is found acceptable by the DOE.

- Estimation of emission reductions and ex-ante fixed parameters.

The PP has applied several changes related to the estimation of emission reductions and ex-ante fixed parameters.

a) Changes applied in the parameter $Op_kitchen_{i,y}$.

This is discussed in the Section D.6 of this Validation Report as a part of the Monitoring Plan.

b) Changes in Historical consumption of woody biomass per person dependant on the kitchen.

The PP, based on the results of the first monitoring period for which the Verification^{/20/} has been conducted, has applied corrections on this parameter.

The baseline fuel consumption has been established at 5 kg/student and day. This is based on a letter from the Ministry of Education^{/17/} that the DOE has cross-checked and found acceptable.

The letter provides the figure that the consumption is more than 5 kg/student and day (without specifying precisely), hence, as the PP has adopted the value of 5 this is conservative and found acceptable by the DOE. This is even more conservative than the registered scenario (5.3 kg/student and day).

The PP has applied these changes in Section B.6.1. of the revised PDD^{/10/} version 2.0 dated on 21/09/2020, resulting on a final value of $M_{woody_biomass_hist_pp,i}$ of 1.13 tons per capita per year after applying the value of 226 days (see Section D.6 of this Validation Report).

The PP has also applied a change in the average number of students per school, being changed from 612 to 653. The value is based on the data monitored during the Verification^{/20/} for the school year 2016-2017, hence this is considered acceptable by the DOE.

The PP has applied the new values for the ex-ante calculations of ERs consistently along the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the ER Calculation Sheet^{/11/}, hence this is found acceptable by the DOE.

c) Changes in Useful thermal output capacity of the IICS.

The PP, based on the type of stove deployed under the PA has reflected appropriately the changes in Section B.6.2 of the revised PDD^{/10/} version 2.0 dated on 21/09/2020, hence accepted.

d) Changes in Leakage emissions due to the consumption of electricity.

Due to the changes in the value of the parameter B_y , the parameter $M_{renewable.biomass,y}$ also changes accordingly. This leads to a change in the value of the needed electricity for the production of the renewable briquettes ($EC_{PJ,j,y}$) and consequently, the value of the Leakage emissions from electricity consumption in year y ($LE_{EC,y}$) results in 5,912 tCO₂/yr.

The calculations have been cross-checked by the DOE based on the assumptions taken for the ex-ante estimation of ERs along the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the ER Calculation Sheet^{/11/}, finding the same consistent, hence accepted.

e) Changes in results of ERs estimation.

The PP estimates the ERs in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 to be 182,061 tCO₂e/yr, based on the following:

Year	Baseline emissions (tCO ₂ e)	Project emissions (tCO ₂ e)	Leakage (tCO ₂ e)	Emission reductions (tCO ₂ e)
25/01/2016 to 31/12/2016	175,631		5,523	170,089
01/01/2017 to 31/12/2017	187,973	-	5,912	182,061
01/01/2018 to 31/12/2018	187,973	-	5,912	182,061
01/01/2019 to 31/12/2019	187,973	-	5,912	182,061
01/01/2020 to 31/12/2020	187,973	-	5,912	182,061
01/01/2021 to 31/12/2021	187,973	-	5,912	182,061
01/01/2022 to 31/12/2022	187,973	-	5,912	182,061
01/01/2023 to 24/01/2023	12,360		389	11,971
Total	1,315,811		41,384	1,274,426
Total number of crediting years	7			
Annual average over the crediting period	187,973	-	5,912	182,061

The ER estimations as presented in the revised PDD^{10/} version 2.0 dated on 21/09/2020 and the ER Calculation Sheet^{11/} are consistently calculated, hence found acceptable by the DOE.

- Updated Section B.7.3.

The PP has applied several changes related to other elements of the monitoring plan. The changes have been described in other parts of the PDD and hence evaluated under this Section of the Validation Report, except a change related to the Sales Agreement.

The new template of the Sales Agreement has not been cross-checked by the DOE as the change applied will come into effect only in the case new schools are adhered to the project, further from the actual 284 schools. The opinion of the project participant at this moment is that no new schools are foreseen to be adhered, however, still there is space as per the project's size limit. In this sense, the DOE has raised FAR#01 (see Appendix 4).

- Updated Section D.Environmental Impacts.

The PP has transferred information of the environmental impacts in order to comply with the requirements of the new template used for the PDD. This is found acceptable by the DOE.

- Updated Section F. Approval and authorization.

The PP has updated the Section according to the current approval and authorization letters from the host countries. This is found acceptable by the DOE.

- Updated Appendix 1.

The PP has corrected the information of the contact details of project participants for Burundi Quality Stoves S.A. and Shell Trading International Limited.

	<p>The DOE has cross-checked the latest available information on the UNFCCC webpage⁴ regarding the contact details of the PPs as per the registered MoC and its updates^{16/}.</p> <ul style="list-style-type: none"> - Updated Appendix 6. <p>The PP in order to comply with the configuration of the latest template for the PDD has stated as not applicable the Appendix 6, given the details are already provided in Section E of the revised PDD^{10/} version 2.0 dated on 21/09/2020.</p> <ul style="list-style-type: none"> - Updated Appendix 7. <p>The PP in order to comply with the configuration of the latest template for the PDD has stated the applicable PRCs in the Appendix 7 of the revised PDD^{10/} version 2.0 dated on 21/09/2020.</p> <p>The assessment team has checked the revised, corrected and detailed information along the revised PDD^{10/} version 2.0 dated on 21/09/2020, its compliance with the applicable regulatory documents, template's instructions and its consistency and found the information consistent and in line with applicable requirements.</p>
Findings	CL#1; CL#2; CAR#1; CAR#2; FAR#01; were raised and closed accordingly. Please refer to Appendix 4 for the detailed description and closure of the findings.
Conclusion	After assessment team's check process and closure of related findings, the DOE can confirm that the revised PDD ^{10/} version 2.0 dated on 21/09/2020 complies with the requirements set out in VVS for PAs ^{01/} version 02.0 Paragraphs 287 to 289.

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 a 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.

⁴ <https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1385004301.04/view>

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	<p>The PP has presented the proposed permanent changes to the registered monitoring plan in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the assessment team has checked them for compliance evaluation as per PS for PAs^{/02/} version 02.0 Paragraphs 238 and 239.</p> <p>Due to the notification of incompleteness received for the Verification^{/20/} regarding the determination of the parameter Op_kitchen_{i,y} (Operating status of kitchen i in year y), it is not clear whether the registered approach used for the monitoring of the 1st Verification^{/20/} is appropriate or conservative, considering the kitchen may be not operational even though stocks are available.</p> <p>As per registered PDD^{/09/}, the parameter is measured by "<i>a physical check performed by the CDM project participants at least every two years (biennial) in accordance with the monitoring plan</i>". The basis is the assumption that schools use the briquettes as long as the schools are open, except when they are out of stock and use firewood instead.</p> <p>The DOE during the Verification^{/20/} cross-checked the reports of these physical checks and confirmed that have been carried out biennially and in accordance with Appendix 5 of the registered PDD^{/09/} and its section B.7.1. "Measurement Methods and Procedures". The PP has corrected in this revised PDD^{/10/} an error not detected during validation in the table for this parameter for the Monitoring Frequency, to make it consistent with the biennial inspection.</p> <p>In particular, in these reports, the kitchens report the days of shortage of briquettes and PP has taken due account of this information in the ER calculations for the Verification.</p> <p>The DOE has cross-checked a Ministry Note^{/18/} and Ministerial Orders^{/19/} from the Ministry of Education detailing the number of school days per year, revealing an average of 226 school days over the last years including Saturdays (school years from 2016/17 to 2018/19). PP thus has revised the initially registered amount of estimated school days per year from 241 to 226 accordingly in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the ER Calculation Sheet^{/11/} provided for this Validation of PRC assessment. The same has been found acceptable by the DOE.</p> <p>For the parameter Op_kitchen_{i,y}, the PP has further applied conservative approach in order to measure the operational status of the kitchens.</p> <p>The PP now considers not only the shortage of briquettes as a condition to consider the kitchen no operational (that was already written in the registered PDD^{/09/}), but also provides that in case any of the stoves is not operational, the value between 0 and 1 of the parameter Op_kitchen_{i,y} will be pro-rated. This approach, in DOE's opinion, covers situations in which the kitchen may be partially or fully non-operational because of different situations than the one initially considered (i.e. briquettes shortage). Further, the PP will apply also the consideration of the briquettes shortage as a further measure to discount the operational status of the kitchens. This is considered conservative by the DOE and hence found acceptable.</p> <p>The PP has, in this sense, amended in the revised PDD^{/10/} version 2.0 dated on 21/09/2020, the following:</p> <ul style="list-style-type: none"> - Section B.6.1. <p>Apart from the described above, the PP considers, for the purpose of ex-ante calculations, a fully operational kitchen status and constant briquettes supply, which is found acceptable for the purposes of estimations.</p>
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- Data/Parameter Op_kitchen_{i,y} table in Section B.7.1.

Data / Parameter	Op_kitchen _{i,y}
Data unit	-
Description	Operating status of kitchen <i>i</i> (equipped with IICS) in year <i>y</i>
Source of data	Estimates based on surveys then monitored. Calculated based on monitoring findings.
Value(s) applied	1
Measurement methods and procedures	A physical check will be performed by the CDM project proponent at least once every two years (biennial) in accordance with the monitoring plan.
Monitoring frequency	At least biennially
QA/QC procedures	-
Purpose of data	Calculation of baseline emissions
Additional comments	<p>The operational status of each kitchen in the year <i>y</i> is reflected by the parameter (Op_kitchen_{i,y}) at a value of 1 if kitchen <i>i</i> still operates all of the improved cookstoves installed, or a prorata of the IICS found in order of operation out of the total number of IICS initially installed, and a value of 0 if none of the IICS is operated.</p> <p>In ex-ante calculations, it is assumed that all targeted schools' kitchen will properly operate with the provided improved cookstoves and renewable briquettes.</p> <p>Guidance for monitoring are provided to field agents in order to determine the operating status of each kitchen during monitoring session with specific conditions to comply with (appendix 5).</p>

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The parameter is well stated as per the requirements of the applied methodology^{/05/} and considers further measures in order to observe situations in which the kitchen may be partially or fully not operating, being not only based on the supply of briquettes, but also applying pro-rata to the kitchens considering the number of operating stoves within a kitchen during the monitoring surveys, that will be conducted at least biennially.

Value applied is for the purpose of ex-ante estimation of emission reductions, however, it is clear the value will be monitored through the monitoring periods as stated in the table above.

This is found acceptable by the DOE.

The DOE found other aspects of parameters M_{renewable.biomass,y}, N_{pers / kitchen i,y} and N_{IICS,j,y} have changed in line with the corrections applied and evaluated in Section D.3. of this Validation Report.

The same have been found acceptable by the DOE.

Findings	CAR#4 was raised and closed accordingly. Please refer to Appendix 4 for the detailed description and closure of the findings.
Conclusion	After assessment team's check process and closure of related findings, the DOE can confirm that the revised PDD ^{/10/} version 2.0 dated on 21/09/2020 complies with the requirements set out in VVS for PAs ^{/01/} version 02.0 Paragraphs 296 to 299.

D.7. Changes to the project design

Means of validation	The PP has presented the proposed changes to the project design in the revised PDD ^{/10/} version 2.0 dated on 21/09/2020 and the assessment team has checked them for compliance evaluation as per PS for PAs ^{/02/} version 02.0 Paragraphs 240
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and 241 (e) and (h).

- Change in the initially considered type of stove.

The PP has corrected the information regarding the type of IICS that is distributed under the PA in current situation and implementation status. The PP in the registered version of the PDD^{/09/} has estimated a type of stove that finally has not been adopted. Hence the PP has corrected such information to adapt the revised PDD^{/10/} version 2.0 dated on 21/09/2020 to the real circumstances of the PA.

The PA was initially designed to count with a stove with capacity from 2.49KWth to 4.82 KWth (page 8 of the registered version of the PDD^{/09/}).

This initial design has been described in the registered version of the PDD^{/09/} as an indicative choice. Due to reasons related to price and capacity, the PP has finally adopted another model of stoves, which has been referred in the Verification Report^{/20/}.

The initially considered type of stove was supposed to cover the necessities of around 50 students, while the adopted type of stove covers the necessities of around 197 students, which can be explained by its increased thermal power and efficiency.

The DOE has cross-checked the technical details of the Large IICS as provided in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 (*inter alia*, Section A.3., Section B.6.2) founding that the Thermal Output Capacity is 32.78 kW_{th} and the Efficiency equal to 44.8%. The same has been found correct in light of the stove tests performed by CRUEA^{/15/} on April 2019.

The DOE has also cross-checked a technical document^{/21/} provided by the International Lifeline Fund Institutional Stove Construction Manual confirming the technical details of the IICS as shown in Section A.3. of the revised PDD^{/10/} version 2.0 dated on 21/09/2020.

The changes applied also affect to the estimation of emission reductions of the project activity, and the consequential changes have been applied in the ER Calculation Sheet^{/11/} provided by the PP.

The applied change does not affect the additionality of the project activity as per the details in the PDD^{/10/} Section B.5. and this is in line with the PS for PAs^{/02/} version 02.0 Appendix 1, Paragraph 1 (d) (ii).

The calculations given the new technical parameters of the stove type currently deployed under the PA have been cross-checked by the DOE founding the project size limit calculations^{/11/} for the compliance with the SSC thresholds to be consistently determined under current PA circumstances.

The DOE, based on verification site visit observations, the provided technical details^{/10/ /15/ / 21/} of the Large IICS and the information contained in both the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the ER Calculation Sheet^{/11/} found this change acceptable and in line with the current implementation status of the PA and the requirements for Project Design Changes as per PS for PAs^{/02/} version 02.0 Paragraph 241 (e).

- Deleted the scope of action for refurbished masonry stoves.

The PP has excluded from the project activity the possibility of including refurbished masonry stoves in the scope of the latter in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and also applied such change in the ER Calculation Sheet^{/11/}.

The DOE has found consistently applied this change along the aforementioned documents.

The DOE, during the process of verification^{/20/} has noticed that there were no refurbished masonry stoves in the project activity, hence this change in the project design is accepted and consistent with the actual project's implementation status, not adversely affecting its capability to operate and reduce emissions in the host country in comparison with the originally registered information and conception of the project activity.

- The schools considered not only boarding schools but also non-boarding schools.

While initially envisaged in boarding schools only at project inception and initial registered version of the PDD^{/09/}, the Government's schools canteen program has been extended to further schools including primary and secondary "non-boarding" schools (day schools), due to the lenders' growing interest in supporting food programmes for children and their families through the educative institutions and local agricultural production at the same time.

As assessed and revised in detail in section B.6.1 of the revised PDD^{/10/} version 2.0 dated on 21/09/2020, both school schemes have been surveyed and feature similar cooking woodfuel consumption baseline/history, with day schools offering breakfast and lunch while boarding schools serve lunch and dinner. However, the non-boarding schools' wood fuel consumption is slightly lower.

Therefore, the more conservative baseline is applied to all types of schools in order to account for ongoing abandonment of the boarding school system, as per 2019 government communication^{/12/}, which states that: *"the Ministry has migrated from the system of boarding schools to the system of schools with school canteens in the provinces of Bujumbura Rural (5), Bujumbura Mairie (13), Bubanza (4), Ngozi (6), Kirundo (7), Gitega (13) and Muyinga (2). [...] The purpose of this letter is to ask you to support us for the rest of the boarding schools and to extend this school canteen programme to all the provinces of the national territory."*

The letter documents the ongoing progressive phase out of boarding schools in favour of day schools since 2014.

The DOE has cross-checked the Host Country Government's communication^{/12/} referred by the PP and found the same reflects the situation in which the PP is basing its decision of extending the PA to the non-boarding schools, hence the PRC regarding the extension of the PA to all type of schools along the host country instead of only adhering to the boarding schools is considered acceptable and well-founded by the DOE.

As depicted by the PP, the baseline fuel consumption in the non-boarding schools is similar to the baseline in the boarding schools, if the most conservative scenario is retained.

As per 2017-06-28 DNCS note to lenders^{/17/} it is stated that the only fuel used is wood. The amount of wood to be provided by the parents is 3 kg per student per day. This wood supply is used to prepare the lunch. The porridge served in the morning is prepared with the wood supplied to the schools by the government. The quantity per school varies from 4 to 6 steres of wood per day depending on the size of the school.

The PP has applied a comparison^{/11/} between the originally registered scenario and the actual scenario considering the day schools in order to determine the most conservative scenario for the determination of the

M\woody_biomass_hist_pp.i.

For the day schools serving lunch and breakfast:

DAY SCHOOLS		
Morning smash	Average Consumption of wood per school (2016/17 data)	4,0
	<i>stere/school /day</i>	
	Conversion Factor from stere to tons	0,35
	-	
	$N_{pers} / school, y$	653
	<i>pers/school, 2016/17</i>	
	$M_{woody_biomass_hist_pp,i}$	0,006
	<i>Stere/d</i>	
	$M_{woody_biomass_hist_pp,i}$	0,0021
	<i>Tons/d</i>	
Lunch	<i>Tons/d</i>	0,0030
DAY	<i>Tons/d</i>	0,0051

For the boarding schools serving lunch and dinner:

BOARDING SCHOOLS (Initially registered calculation with revised number of students)		
DAY	Average Consumption of wood per school over 2009/2010/2011	9,3
	<i>stere/school /day</i>	
	Conversion Factor from stere to tons	0,35
	-	
	$N_{pers} / school, y$	653
	<i>Student/y</i>	
	$M_{woody_biomass_hist_pp,i}$	0,014
	<i>Stere/d</i>	
	$M_{woody_biomass_hist_pp,i}$	0,0050
	<i>Tons/d</i>	

An alternative figure of 0,0050 tons per day is also provided as per the 2017-06-28 DNCS note to lenders^{/17/} in order to reinforce the selection of the value as 0.0050 tons per day, which is conservative in comparison with the actual registered value of 0.0053 that was considered in the registered version of the PDD^{/09/}.

Hence, by including the day schools in the project activity and selecting the most conservative value for the parameter $M_{woody_biomass_hist_pp,i}$ the result of the latter is 1.13, which is conservative in comparison with the 1.28 value in the registered version of the PDD^{/09/}.

Furthermore, the revised/conservative baseline has been applied to all types of schools in order to account for ongoing abandonment of the boarding school system, as per 2019 government communication^{/12/} checked by the DOE.

Given the above, the DOE considers the change acceptable and consistently applied without affecting adversely the conservativeness of the assumptions.

The assessment team has checked the changes applied in the project design along the revised PDD^{/10/} version 2.0 dated on 21/09/2020, corresponding to: Changes to the technologies/measures that result in the same technologies/measures as in the originally registered technologies/measures; and Actual operational parameters that are within the control of the project participants, differing from the expected parameters. These changes correspond to the ones permitted in the PS for PAs^{/02/} version 02.0 Paragraph 241 (e) and (h).

	<p>The applied changes do not adversely impact:</p> <ul style="list-style-type: none"> - The applicability and application of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents with which the project activity has been registered; - The compliance of the monitoring plan with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents; - The level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan; - The additionality of the project activity; - The scale of the project activity. <p>The assessment team also considers that the applied changes do not adversely affect the conclusions of the validation report of the registered PDD^{/09/} with regard to the above described issues, the project boundary and any associated leakages due to the changes or the compliance of the monitoring plan with the applied regulatory documents.</p> <p>The assessment team hence, based on what is described above and considering the provisions in the PS for PAs^{/02/} version 02.0 Appendix 1, considers that the changes are suitable to be presented at the time of submission of Request for Issuance (Issuance Track).</p>
Findings	<p>CAR#2 was raised and closed accordingly.</p> <p>Please refer to Appendix 4 for the detailed description and closure of the findings.</p>
Conclusion	<p>After assessment team's check process and closure of related findings, the DOE can confirm that the revised PDD^{/10/} version 2.0 dated on 21/09/2020 complies with the requirements set out in VVS for PAs^{/01/} version 02.0 Paragraphs 300 to 310.</p>

D.8. Changes specific to afforestation and reforestation project 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 done by the Applus+ Certification's HQ personnel.

For final approval, the final set of documents are prepared by the DOE's Technical Manager or its deputy and approved 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 *BQS improved cookstoves for Burundi's schools UNFCCC Ref. no. - 9791*. 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 Project 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 (*inter alia*: site visits; Skype calls and interviews; other means of assessment), have provided Applus+ Certification with sufficient evidences to determine the compliance with the applicable requirements.

The proposed changes as described in the revised PDD^{/10/} version 2.0 dated on 21/09/2020 and the DOE's related Final Verification and Certification Report^{/20/} version 02 dated on 25/04/2020 comply with all the applicable requirements set out in VVS for PAs^{/01/} version 02.0, PS for PAs^{/02/} version 02.0 and PCP for PAs^{/03/} version 02.0 and have been determined to be capable to be presented in Issuance Track, correctly applying the applicable requirements set out in any other applicable regulatory document.

In DOE's opinion, the revised PDD^{/10/} version 2.0 dated on 21/09/2020 meets all relevant UNFCCC requirements for the CDM and all relevant host country criteria.

The revised PDD^{/10/} version 2.0 dated on 21/09/2020, 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
CMP	The Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol
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 PA	Project Cycle Procedure for Project Activities
PDD	Project Activity Design Document
PP	Project Participant
PRC	Post Registration Changes
PS for PA	Project Standard for Project Activities
UNFCCC	United Nations Framework Convention on Climate Change
VVS for PA	Validation and Verification Standard for Project Activities
WFP	World Food Programme

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. Agustín Calle	LA / TEiT	NO	n/a	n/a
Mr. Sukanta Das	A / TE	YES (1.1)	n/a	YES ⁵
Mr. Denny Xue	TR /TE	YES (1.1)	n/a	n/a

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

Mr. Agustín Calle	<p>Mr. Agustín Calle has a Bachelor's Degree on Environmental Sciences and Master's Degree on Environmental Control and Management in Companies.</p> <p>He has more than 9 years of experience on CDM, sustainability, implementation, outsourcing and audit of Management Systems, waste management and renewable energies consultancy services, as well as an active participation in Spanish Normalisation Committees for sustainability standards, among other activities.</p> <p>In Applus+ since July 2017, being the Technical Manager and Quality Manager for CDM/VCS/GS4GG Department to ensure quality performances, coordinate global team and maintenance of the Accreditations.</p> <p>Mr. Agustín Calle is qualified as Lead Auditor for Validation and Verification activities by Applus+ Certification as well as is qualified as Technical Expert in Sectoral Scopes/Technical Areas 3.1 and 1.2 by the same entity, hence having participated in various GHG Assessments under the UNFCCC CDM/VCS/GS4GG schemes.</p>
Mr. Sukanta Das	<p>Mr. Sukanta Das has done M. SC in Electronics and Photonics and M. Tech in Energy technology from Tezpur Central University and Indian Institute of Technology in Bombay.</p> <p>He is a Certified Lead Auditor for ISO 14001 EMS and ISO 9001 QMS from International Registry for Certified Auditors (IRCA) and Certified Lean Management practitioner from Quality Council of India (QCI).</p> <p>He has more than 9 years of working experience at TUV Nord/Re-consult/CRA and Applus+ Certification under various categories of projects and programmes starting from Renewable to waste and supercritical projects.</p> <p>Currently he is associated with True Quality Certifications Private Limited and he is</p>

⁵ Site visit conducted for Verification for which this PRC Report is prepared in Issuance Track.

empanelled with Applus+ Certification since 2015 and along his career has been involved in more than 200 Validations and Verifications of PAs and PoAs as Lead Auditor, Technical Expert and Technical Reviewer for projects and programmes within the SS/TAs 1.1 / 1.2 / 3.1 / 13.1.

Mr. Denny Xue

Mr. Denny Xue (Master's Degree in Environmental Engineering, Bachelor's Degree in Thermal Engineering) is an Auditor appointed by Applus+ LGAI for the GHG project assessment, auditing and technical review under SS/TAs 1.1 / 1.2 / 13.1.

He has more than 6 years of work experience in CDM/GS4GG/VCS project assessment and technical review with Applus+.

Before he joined Applus+ LGAI, he has been working for Shanghai Chuanji Investment and Management which is a CDM consultancy company as a project manager for CDM project development.

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1	UNFCCC	CDM Validation and Verification Standard for Project Activities version 02.0	29/11/2018	Other
2	UNFCCC	CDM Project Standard for Project Activities version 02.0	29/11/2018	Other
3	UNFCCC	CDM Project Cycle Procedure for Project Activities version 02.0)	29/11/2018	Other
4	UNFCCC	CDM Accreditation Standard version 07.0	01/03/2018	Other
5	UNFCCC	AMS I.E - Switch from non-renewable biomass for thermal applications by the user (Version 05.0)	20/07/2012	Other
6	UNFCCC	General guidelines for SSC CDM methodologies (version 23.0)	12/09/2019	Other
7	UNFCCC	Standard: Sampling and surveys for CDM project activities and programme of activities (version 08.0)	28/11/2019	Other
8	UNFCCC	CDM-PDD-FORM CDM Project Activities Design Document form (version 11.0)	31/05/2019	Other
9	UNFCCC	Registered Version of the PDD (version 1.7)	27/02/2014	Other
10	PP	Initial PDD for PRC Final version of PDD for PRC version 2.0	07/08/2020 21/09/2020	PP
11	PP	Estimated ERs Calculation Sheet (initial revised version for PRC) Estimated ERs Calculation Sheet (final version for PRC)	17/08/2020 21/09/2020	PP
12	Ministère de l'Education, de la Formation Technique et Professionnelle (Republique Burundi)	Lettre Ministre WFP internats	22/08/2019	PP
13	Système des Nations Unies au Burundi et gouvernement du Burundi	BURUNDI - Rapport national sur les OMD 2015	07/2015	Other
14	World Food Programme (WFP)	Évaluation des programmes intégrés de cantines scolaires financés par l'Ambassade des Pays Bas (provinces Bubanza, Bujumbura rural et Cibitoke) et par l'Union européenne (province	07/2019	Other

		Gitega) et mis en œuvre par le PAM au Burundi		
15	CRUEA (University of Burundi)	School stoves tests CRUEA	-	PP
16	PP	MoC Annex 2 (Change/update authorized signatory, name or contact details) valid as of 27/05/2020	https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1385004301.04/view	Other
17	Ministry of Education	Letter of Ministry of Education to WFP, FAO, UNDP, GIZ and Dutch Embassy.	28/06/2017	PP
18	Ministry of Education	2018-09-11 NOTE CIRCULAIRE DPE	11/09/2018	PP
19	Ministry of Education	Ministerial orders establishing the school year calendar for 2016/17 – 2017/18 and 2018/19	-	PP
20	Applus+ Certification	Final Verification Report for the Monitoring Period 25/01/2016 – 31/12/2018 (version 02.1)	23/09/2020	Other
21	ILF	International Lifeline Fund Institutional Stove Construction Manual	-	PP

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

Table 1. CLs from this validation

CL ID	01	Section no.	D.3	Date:	15/09/2020
Description of CL					
<p>The PP is requested to clarify if refurbished masonry stoves are still considered to be within the PA scope of action, as it is not clear based on what is described in Footnote 10 of the PDD provided for PRC Validation as well as along the document in different places.</p> <p>Moreover, the PP is requested to clarify how is expected a distribution of 825 IICS as stated in Footnote 10 when there are 940 distributed IICS at the time of performing the Verification process.</p> <p>Regarding the same footnote, the PP is requested to clarify how has calculated the average persons served by each cookstove given the served persons as per 1st monitoring report are 185.519 for 284 schools and 940 IICS distributed.</p> <p>The same clarifications shall be taken into account for the information presented in the ex-ante calculation spreadsheet and the Section B.2. of the revised PDD and its footnotes.</p>					
Project participant response					Date: 18/09/2020
<p>The reference to the refurbishment of masonry stoves in Footnote 10 has been removed to take full account of the focus of activity on installation IICS as detailed in the PRC.</p> <p>The idea has been to take account of the growing student count/stove since 2016/17. Since this leads indeed to inconsistencies, the expected number of IICSS has been revised to 940, and “225” students per stove is being replaced by “more than 197”, which provides leeway for the growing student count/stove. ER calculations (tab Project size limit) has also been revised.</p> <p>As stated above “197 students/stove” is the correct figure, which is now inserted in the PDD.</p> <p>All revisions are now integrated in the PDD.</p>					
Documentation provided by project participant					
Revised PDD.					
DOE assessment					Date: 23/09/2020
<p>The PP has applied the necessary amendments to clarify the issues described above, and that has been found acceptable by the DOE.</p> <p>Hence, the CL is closed.</p>					

CL ID	02	Section no.	D.3	Date:	15/09/2020
Description of CL					
<p>The PP is requested to clarify the purpose of the worksheet “Quantity of biomass needed” in the 200817 - ER Ex-ante Calc - BQSSCH - (ID 10543) excel sheet. Please clarify the data contained as per the:</p> <ul style="list-style-type: none"> - Revised values of Average Consumption of wood per school. - Actual status of implementation of the expected 4 Briquetting machines (while the excel refers to 3). 					
Project participant response					Date: 18/09/2020
<p>The worksheet actually only served internal purposes and did not intervene with the ER calculations. Therefore it has been deleted.</p>					
Documentation provided by project participant					

<i>Revised ER sheet.</i>	
DOE assessment	Date: 23/09/2020
The clarification is found acceptable by the DOE.	
Hence, the CL is closed.	

Table 2. CARs from this validation

CAR ID	01	Section no.	D.3	Date: 15/09/2020
Description of CAR				
<i>The following information reported in the revised PDD is not consistent:</i>				
<ol style="list-style-type: none"> 1. Section F. 2. Footnote 17. 3. Footnote 27. 				
<i>Corrective action is sought for the same.</i>				
Project participant response				Date: 18/09/2020
<ol style="list-style-type: none"> 1. Section F has been revised to take account of the LoA received from the parties of the Project participants, which are already uploaded on the UNFCCC website. 2. The first part of footnote 17 ("Conservative assumption...") has been deleted as it was referring to médium & large IICS, stove sizes, which only existed for the initially considered stove. As for IICSs installed, there is only one size. 3. Footnote 27 has been deleted and relevant updated information integrated into the text (kg/day and stere/day). Conversion factor from stere to kg is provided further down in the PDD. 				
Documentation provided by project participant				
<i>Revised PDD.</i>				
DOE assessment				Date: 23/09/2020
The corrections have been applied consistently, thus this is considered acceptable by the DOE.				
Hence, the CAR is closed.				

CAR ID	02	Section no.	D.3	Date: 15/09/2020
Description of CAR				
<i>The PP is requested to provide the evidences to support the information as shown in Table 2 of the revised PDD proposed for PRC for the lifetime of the IICS deployed under the PA.</i>				
Project participant response				Date: 18/09/2020
<i>BQS estimates lifetime to 8 years, as indicated in the biennial onsite check reports. 913 of 940 IICSs installed in the first trimestre 2016 are still operational in 2018/19 as per ER sheet of first verification. Non operation may depend on various factors. Each stove benefits from a maintenance service, once broken, i.e. effective lifetime of each stove is not really relevant and -up to now – not known. The final contracts with the schools also don't indicate a specific lifetime or warranty but only provide for a maintenance service once the stove is broken. Therefore, the category lifetime is removed from the table.</i>				
Documentation provided by project participant				
<i>Revised PDD International Lifeline Fund Institutional Stove Construction Manual</i>				

DOE assessment	Date: 23/09/2020
<p>Given the characteristics of the stoves and the provisions of the maintenance operations, the explanation by the PP and the corrective action is considered acceptable. The PP has also provided the <i>International Lifeline Fund Institutional Stove Construction Manual</i> for further reference of the characteristics and particularities of these type of stoves, in which there is no indication about the lifetime and/or warranty in the sense described above.</p> <p>Hence, the CAR is closed.</p>	

CAR ID	03	Section no.	D.7	Date: 15/09/2020
Description of CAR				
<p>The PP is requested to correct the information presented in the 200817 - ER Ex-ante Calc - BQSSCH - (ID 10543) excel sheet based on the decision of excluding the refurbishment of masonry stoves from the PA scope.</p>				
Project participant response				Date: 18/09/2020
<p>The tab "Project size limit" has been revised to exclude residual non-relevant information on refurbishment of masonry stoves.</p>				
Documentation provided by project participant				
Revised ER				
DOE assessment				Date: 23/09/2020
<p>The correction is found acceptable by the DOE.</p> <p>Hence, the CAR is closed.</p>				

CAR ID	04	Section no.	D.6	Date: 15/09/2020
Description of CAR				
<p>The PP is requested to correct the information as presented in the Appendix 5 of the revised PDD. The Appendix 5 considers a kitchen fully operational except in cases of a shortage of briquettes, which is not conservative neither in line with the information provided along the revised PDD.</p> <p>Corrective action is sought for the same.</p>				
Project participant response				Date: 18/09/2020
Appendix 5 has been amended				
Documentation provided by project participant				
Revised PDD.				
DOE assessment				Date: 23/09/2020
<p>The PP now includes the case as depicted in other sections of the PDD to consider the kitchen not operational, thus the corrective action is found acceptable.</p> <p>Hence, the CAR is closed.</p>				

Table 3. FARs from this validation

FAR ID	01	Section no.	D.3	Date: 15/09/2020
Description of FAR				
<p>The PP has applied changes in the Sales Agreement as per the revised PDD. The next DOE performing verification is requested to verify, in cases where new schools are adhered to the PA, the consistency of the sales agreement with the new information as presented in the PDD.</p>				
Project participant response				Date: DD/MM/YYYY
Documentation provided by project participant				

DOE assessment	Date: DD/MM/YYYY

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Document information

<i>Version</i>	<i>Date</i>	<i>Description</i>
03.0	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 project activities” (CDM-EB93-A05-STAN);• Make editorial improvements.
02.0	31 October 2017	Revision to align with the requirements in the “CDM validation and verification standard for project activities” (version 01.0).
01.0	23 March 2015	Initial publication.
Decision Class: Regulatory Document Type: Form Business Function: Registration Keywords: post-registration change, project activities, validation report		