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GOLD STANDARD FOR THE GLOBAL GOALS (GS4GG)
REPORT
-
DESIGN CHANGE CERTIFICATION (VALIDATION)

Project Title:	GS 10789 VPA1: Efficient and Clean Cooking for households in Somalia
GS project ID:	GS 10790
Internal ID:	BELL_GS_PoA_PRC_11425
Customer:	ECOA Climate Capital
Date:	14/11/2025
Revision:	02

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SUMMARY			
Reference No.	**Date** *(first version)*	**Version No.**	**Date** *(last version)*
BELL_GS_PoA_PRC_11425	15/09/2025	02	14/11/2025
Client	ECOA Climate Capital		
Project Title	GS 10789 VPA1: Efficient and Clean Cooking for households in Somalia		
Project Participants	ECOA Climate Capital		
Project Location	Somalia		
Contact Person	Mr. Nathan Gachugi		

• GS4GG Principles and Requirements, version 2.1 • GS4GG Programme of Activity Requirements, v3.0 • GS4GG Validation and Verification Standard Version 2.0 • GS4GG Activity Requirements: Community and Services Activity Requirements, v1.2 • GHG Emissions Reduction & Sequestration Product Requirements v.3.1 • Site Visit and Remote Audit Requirements and Procedures, v.2.0 • Applied Methodology Version: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1[1]	GS4GG Sectoral Scope: 2.0 UNFCCC CDM Sectoral Scope: 3.0 Technical Area: 3.1 Scale of Project: Large- Scale Project cycle: Retroactive
GS4GG Registered PDD Version: 4.0 Date: 13/10/2021	GS4GG Final PRC PDD Version: 5.1 Date: 12/11/2025
Estimated Annual Emission Reductions: 491,903 tCO_2e per year	

Selected Sustainable Development Goals (SDGs): 1; 3; 7; 8; 13

Estimated Sustainable Development Contributions:

Sustainable Development Goals Targeted	SDG Impact	Estimated Annual Average	Units or Products
SDG 1: End poverty in all its forms everywhere	Monetary savings related to the purchase of charcoal	62%	Monetary savings in %
3 (Good health and well- being) Ensure healthy lives and promote well-being for all at all ages	Perceived air quality	80%	Households in % perceiving improved air quality
7 (Affordable and Clean Energy) Target 7.1,	Number of ICS sold/distributed in use	126,247	ICS in use

[1] https://globalgoals.goldstandard.org/standards/407_V3.1_EE_ICS_Technologies-and-Practices-to-Displace-Decentrilized-Thermal-Energy-TPDDTECConsumption-.pdf

Indicator 7.B Proportion of population with primary reliance on clean fuels and technology			
8 (Decent work and Economic growth) Target 8.5; Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all	Total number of jobs created	25	No. of jobs created
SDG 13: Climate Action (mandatory)	Emission Reduction	491,903	tCO2e GS VERs

Design Change Summary

LGAI Technological Center, S.A. (hereafter referred to as Applus+ Certification) has been contracted by ECOA Climate Capital, to perform the validation of design changes for the project activity "GS 10789 VPA1: Efficient and Clean Cooking for households in Somalia" applying the methodology Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC), version 3.1.

The management of ECOA Climate Capital is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and remote audit have been conducted to verify the data submitted in the GS4GG VPA-DD/1/ and MP5 MR/12/. Applus+ Certification confirms the following have been reviewed:

a. GS4GG Principles & Requirements, version 2.1;
b. GS4GG Programme of Activity Requirements, v3.0;
c. GS4GG Validation and Verification Standard, version 2.0;
d. GS4GG Activity Requirements: Community and Services Activity Requirements, v1.2;
e. Site Visit and Remote Audit Requirements and Procedures, version 2.0;
f. Applied Methodology Version: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC), version 3.1;
g. GS4GG Design Change Request Requirements and Procedures, version 2.0;
h. GS4GG Core Carbon Principles Labelling of Gold Standard Verified Emission Reductions Requirement, version 2.0;
i. All information and references relevant to the project activity's resulting in estimated emission reductions.

The scope of the validation is defined as an independent and objective review of the project design document, against the GS4GG Validation and Verification Standard, version 2.0. The design change validation report is finalized based on the assessment of the Gold Standard GS4GG VPA-DD along with MP5 MR/12/ and applying standard auditing techniques including but not limited to document reviews, follow up actions (e.g. site visit, telephone or e-mail interviews) and also the review of the applicable approved methodology and underlying formula and calculations.

The report and the annexed validation checklist describe a total of 02 findings which include:

- 00 Corrective Action Requests (CARs);

- 02 Clarification Requests (CLs/CRs);
- 00 Forward Action Requests (FARs) (from Current Validation)

The CME has responded to these findings by modifying the Gold Standard GS4GG VPA-DD/1/ and MP5 MR/12/ and providing adequate additional explanations and evidence. Applus+ Certification confirms that all the findings have been "closed out" before submitting the request for design change to the GS4GG board.

As a summary of the validation, the review of the Gold Standard GS4GG VPA-DD/1/ and MP5 MR/12/ and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence for the determination of the project's fulfilment with all stated criteria. In our opinion, the project meets all relevant requirements of the Gold Standard. Therefore, Applus+ Certification recommends the project for design change by the GS Registry as CCP labelled GS VERs project.

ASSESSMENT TEAM		
Team Members	**Type of Resource**[2]	**Organization** *(for OEs)*
Lead Auditor, Technical Expert & GS Approved Auditor: Ms. Arohi Jain	☒ IR ☐ EI ☐ OE	
Local Expert: Mr. Abdikani Ibrahim Gas	☐ IR ☒ EI ☐ OE	
Technical Reviewer / Technical Expert: Dr. N. Premjit Singh	☒ IR ☐ EI ☐ OE	

[2] IR (Internal Resource); EI (External Individual); OE (Outsourced Entity)

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ABBREVIATIONS	
Applus+ LGAI / Applus+	LGAI Technological Center, S.A. (Applus+ Certification)
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
VER	Verified Emission Reduction
CL / CR	Clarification Request
CMP	Conference of the Parties serving as the Meeting of the Parties to the Kyoto Protocol
DNA	Designated National Authority
EF	Emission Factor
EIA	Environmental Impact Assessment
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG (or GS)	Gold Standard for Global Goals
IPCC	Intergovernmental Panel on Climate Change
KP	Kyoto Protocol
MP	Monitoring Plan
NGO	Non-Governmental Organization
SDG	Sustainable Development Goal
TAC	Gold Standard Technical Advisory Committee
ICS	Improved Cooked Stove
CME	Coordinating and Managing Entity
PS	Project Standard
UNFCCC	United Nations Framework Convention for Climate Change
VVB	Validation and Verification Body
VVS	Validation and Verification Standard
CCP	Core Cabon Principles

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SECTION A. Executive summary

ECOA Climate Capital has contracted Applus+ Certification to perform a validation of design changes for the project "GS 10789 VPA1: Efficient and Clean Cooking for households in Somalia" (hereafter referred to as the project activity). This validation report summarizes the findings of the validation of the project, performed on the basis of Validation and Verification Standard, version 2.0 as well as other requirements of Gold Standard for Global Goals (GS4GG).

The primary objective of the project activity is to reduce Greenhouse Gas (GHG) emissions by distributing highly efficient improved cookstoves 'Jikokoa' with the help of local distributors and VPA Implementor BURN Manufacturing Co. in the urban and peri- urban households of Somalia. The project ICS deploys charcoal as fuel which is the fuel used by majority of the population in the urban and peri- urban areas. The project activity also aims to improve health and incomes of the households throughout Somalia by reducing time for cooking and money spent in acquiring fuel for cooking. The project targets to distribute 110,616 project ICS in the host country.

The scale of the project remains the same as large- scale. The thermal energy savings per year at a unit level (i.e., per ICS) are below 1,800 MWh as verified from the ER calculation sheet. Regarding funding sources, no public funding or Official Development Assistance (ODA) are involved. A duly signed declaration/18/ has been provided by the CME to the VVB, confirming the same hence acceptable.

The project activity is designed to meet the technology and measure requirements of the applied methodology 'Technologies and Practices to Displace Decentralized Thermal Energy Consumption'(TPDDTEC) version 3.1.

The host country for the VPA is Federal Republic of Somalia which covers all the 06 federal member states and Banadir Regional Administration (BRA) of the Federal Republic of Somalia.

The start date of the VPA is 01/07/2019. The start date of the crediting period is 02/10/2019. The crediting cycle length is 05 years which is twice renewable for the VPA as per GS4GG Principles and Requirements version 2.0.

In alignment with the para 3.6.1 (i) of the applicable GS4GG Design Change Request Requirements and Procedure Ver 2.0/5/, the VVB has verified that the change in ex- ante parameters has been appropriately applied in the project activity. This adjustment has been made to comply with para 6.1.4 and 6.1.5 of the Core Carbon Principles Labelling of Gold Standard Verified Emission Reductions Requirement, version 2.0/7/ to ensure adherence to the conservative approach in the quantification of emission reductions.

Scope:

The scope is defined as an independent and objective review of the project to perform validation of the project activity for the Design change to comply with the CCP labelling guidelines. The scope of validation for design change is to assess the claims and assumptions made in the VPA-DD and resulting calculations in MR for MP5/12/ document against the GS4GG criteria, including but not limited to, all relevant requirements of Gold Standard.

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

Validation Process:

The project assessment is based on the requirement of Gold Standard and is conducted using standard auditing techniques to assess the correctness of the information provided by the CME.

Before the assessment begins, members of the team covering the technical scope(s), sectoral scope(s), and

relevant host country experience for evaluating the project activity are appointed.

Once the project is made available for the global stakeholder consultation process, the members of the assessment team carried out:

I A desk review of the project design documentation;
II Follow-up interviews with project stakeholders;
III The resolution of outstanding issues and the issuance of the final validation report and opinion.

The prepared validation for design change report and other supporting documents then undergo an internal quality control at the HQ (Accredited office) before being submitted to the GS4GG Registry.

Appointment of the assessment team

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 (Applus+ Certification's validation 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).
- Local Expert (LE).
- Technical Expert (TE).
- Financial Expert (FE)
- Technical Reviewer (TR).
- Any of the above-mentioned roles in training (iT, e.g. AiT for auditor in training).

The sectoral scope / technical area knowledge linked to the applied methodology/ies shall be covered by the assessment team.

Name	Role	SS /TA Coverage	Financial aspect	Host country experience	Remote Audit
Ms. Arohi Jain	LA/TE	YES	NA	NO	Yes
Mr. Abdikani Ibrahim Gas	LE	NA	NA	YES	Yes
Dr. N. Premjit Singh	TR / TE	YES	YES	NA	NA

The complete list of CVs is included as Appendix 1 of this report.

Document review

The VPA-DD/1/ and MP5 MR/12/ submitted by the CME was reviewed against the approved methodology and

other relevant criteria to verify the correctness, credibility, and interpretation of the presented information. Furthermore, a cross-check between information provided and information from other sources has been done.

Follow-up interviews

Applus+ Certification conducted remote interviews and telephonic calls with the CME and team to confirm selected information and to resolve issues identified in the document review.

Resolution of Clarification and Corrective Action Request

The objective of this phase of the validation for design changes was to resolve the requests for corrective actions and clarification and any other outstanding issues which need to be clarified for Applus+ Certification's positive conclusion on the VPA-DD/1/ and MP5 MR/12/. The Corrective Action Requests and Clarification Requests raised by Applus+ Certification were resolved during communications between the client and Applus+ Certification to guarantee the transparency of the validation process, the concerns raised and responses given are summarized in Appendix 4 below.

The final revised VPA-DD version 5.1/1/ dated 12/11/2025 and MP5 MR version 4.0/12/ dated 18/08/2025 submitted by CME serves as the basis for the final assessment presented. Additional changes to the project during the validation process are not considered to be significant with respect to the main GS4GG objectives. The main objectives are the reduction of anthropogenic GHG emissions and the contribution of sustainable development to the host country.

Internal quality control

As a final step of validation, the validation report has to undergo an internal quality control by the technical review committee, i.e., each report has to be finally approved either by the head of the technical review committee or the deputy. In case one of these two persons is part of the assessment team approval can only be given by the other one to avoid any conflict of interest.
After confirmation of the CME the validation opinion and relevant documents are submitted to the GS4GG.

Conclusion

Applus+ Certification has performed a validation of design changes for the "GS 10789 VPA1: Efficient and Clean Cooking for households in Somalia". The validation for design changes was performed in accordance with the GS4GG Design Change requirements, CCP labelling Requirements, related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The review of the VPA-DD/1/ along with the MP5 MR/12/ and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence to determine the fulfilment of stated criteria.

The validation for design changes has been performed following the requirements of the latest version of the GS4GG Design Change requirements, version 2.0/5/ Validation and Verification Standard, version 2.0/4/, Core Carbon Principles Labelling of Gold Standard Verified Emission Reductions version 2.0/7/ and other related Standards/Guidance (as given in the appendix 5) and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. The GS4GG project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long- term benefits to the mitigation of climate change. In our opinion, the project meets all relevant Gold Standard and host country criteria.

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SECTION B. Validation team, technical reviewer and approver.

B.1. Validation team member

Name	Role	SS /TA Coverage	Financial aspect	Host country experience
Ms. Arohi Jain	LA/ TE/ GS Approved Auditor	YES	NA	NO
Mr. Abdikani Ibrahim Gas	LE	NA	NA	YES

B.2. Technical reviewer and approver of the validation report on Design Change

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	IR	Singh	Dr. N. Premjit	Applus+ Certification
2.	Approver	IR	Calle de Miguel	Mr. Agustín	Applus+ Certification

SECTION C. Means of validation

C.1. Desk/document review

The details of the document observed during the validation process are listed below in Appendix 2 of this report.

C.2. On-site inspection and follow up interviews

As part of the validation of design change, a remote audit has been conducted by the validation team in accordance with 'Site Visit and Remote Audit Requirements and Procedures' version 2.0.

S. No.	Interviewee			Date	Subject	Team Member
	Last Name	First Name	Affiliation			
1.	Garg	Vinit Kumar	Senior Carbon Technical Expert (BURN)	10/09/2025	Project implementation & execution, organizational structure, project scale, ex- ante parameters (design change), project start	Ms. Arohi Jain (LA/TE) and Mr. Abdikani Ibrahim Gas (LE)
2.	Njamiu	Valentine	Senior Project Manager-Carbon			

			Operations (BURN)		date, impact of design change on additionality and baseline, compliance of monitoring plan and applied methodology, stakeholder feedback, sustainable development assessment, safeguarding principles assessment	

C.3. Sampling approach

The sampling approach was not applied since the current activity is for design change. There was no impact of the current design change activity on the local stakeholders/ project beneficiaries due to which they were not interviewed and hence sampling was not applicable during the current design change of this project activity.

C.4. Clarification requests (CRs/CLs), corrective action requests (CARs) and forward action requests (FARs) raised

Areas of validation findings	No. of CR/CL	No. of CAR	No. of FAR
Compliance with VPA-DD template	00	00	00
Description of Project Activity	00	00	00
Applicability of methodology	00	00	00
Clarification on applicability of methodology, tool and/or standardized baseline	02	00	00
Project Boundary	00	00	00
Establishment and description of baseline scenario	00	00	00
Project Eligibility	00	00	00
Demonstration of additionality	00	00	00
Sustainability Assessment	00	00	00
Emission reductions	00	00	00
Monitoring Plan	00	00	00
Duration and crediting period	00	00	00
Local stakeholder consultation	00	00	00
Others (please specify):	00	00	00
Total	**02**	**00**	**00**

SECTION D. Validation findings

D.1. Compliance with VPA-DD form

Means of validation	CME has prepared the GS VPA-DD using version 2.3 of GS VPA-DD template. VVB confirms that it is the most recent valid version of VPA-DD template and all the instructions are followed & in line with the GS4GG VPA-DD template guidelines.
Findings	No findings were raised.

Conclusion	VVB confirms that the most recent valid version of GS VPA-DD template is used by the CME and all the information mentioned is the most recent as per the GS4GG guidelines and is materially the same with the registered VPA-DD.

D.2. Description of Project Activity

Means of validation

The project activity is planned to reduce Greenhouse Gas (GHG) emissions by distributing highly efficient improved cookstoves 'Jikokoa' in the urban and peri- urban households of Somalia which deploy charcoal as fuel. The prime purpose of the project activity is to improve health and incomes throughout Somalia by reducing time for cooking and money spent in acquiring fuel for household cooking. The project aims to distribute 110,616 project ICS in the host country.

In alignment with the para 3.6.1 (i) of the applicable GS4GG Design Change Request Requirements and Procedure Ver 2.0/5/, the VVB has verified that the change in ex-ante parameters has been appropriately applied in the project activity. This adjustment has been made to comply with para 6.1.4 and 6.1.5 of the Core Carbon Principles Labelling of Gold Standard Verified Emission Reductions Requirement, version 2.0/7/ to ensure adherence to the conservative approach in the quantification of emission reductions.

The project activity is a large- scale project activity. The thermal energy savings per year at a unit level (i.e., per ICS) are below 1,800 MWh as verified from the ER calculation sheet. Regarding funding sources, no public funding or Official Development Assistance (ODA) are involved. A duly signed declaration/18/ has been provided by the CME to the VVB, confirming the same hence acceptable.

The host country for the VPA is Federal Republic of Somalia which covers all the 06 federal member states and Banadir Regional Administration (BRA) of the Federal Republic of Somalia. The geocoordinates mentioned in the VPA-DD have been cross-checked from Google Maps and found to be OK.

The start date of the VPA is 01/07/2019. The start date of the crediting period is 02/10/2024. The crediting cycle length is 05 years which is twice renewable for the VPA as per GS4GG Principles and Requirements version 2.0.

The technical specifications of the project ICS 'Jikokoa' are as follows:

Stove Manufacturer	BURN
Stove Model	**Jikokoa Classic (G3.5)**
Stove Type	Charcoal Stove
Materials	
Stove Body	CRCA Carbon Steel painted high gloss black epoxy powder coat
Pot Rest	Stainless Steel

Burning Chamber	Stainless Steel	
Ash Tray	Aluzinc	
Feet	Stainless Steel	
Measurements		
Parameter	**Unit**	**Value**
Height	cm	24.4 cm
Diameter (stove top)	cm	26.0 cm
Weight	kg	4 kg
Fuel Chamber Volume	cm^3	954 cm^3
Packaging Dimensions	cm	29.0 L x 28.5 W x 25.1 H
WBT Results		
Parameter	**Unit**	**Value**
High power thermal efficiency (average of cold start and hot start)	%	48.1%
Firepower	kW	2.05
Boil Time	minutes	27.72
Lifetime		
Warranty	2 years	
Estimated Lifetime	7 to 10 years	

Stove Manufacturer	BURN
Stove Model	**Jikokoa Xtra (G4)**
Stove Type	Charcoal Stove
Materials	
Stove Body	CRCA Carbon Steel painted high gloss black epoxy powder coat

Pot Rest	Stainless Steel & Cast Iron	
Burning Chamber	Stainless Steel	
Ash Tray	Aluzinc	
Feet	Aluzinc	
Measurements		
Parameter	**Unit**	**Value**
Height	cm	27.0 cm
Diameter (stove top)	cm	30.2 cm
Weight	kg	5.5 kg
Fuel Chamber Volume	cm^3	1030 cm^3
Packaging Dimensions	cm	30.2 L x 30.5 W x 27.5 H
WBT Results		
Parameter	**Unit**	**Value**
High power thermal efficiency (average of cold start and hot start)	%	44.6%
Firepower	kW	2.21
Boil Time	minutes	27.96
Lifetime		
Warranty	2 years	
Estimated Lifetime	7 to 10 years	

Stove Manufacturer	BURN
Stove Model	**Ecoa Char MMJ**
Stove Type	Charcoal Stove
Materials	
Stove Body	CRCA Carbon Steel, painted hammer tone black epoxy powder coat

Pot Rest	Stainless Steel	
Burning Chamber	Stainless Steel	
Ash Tray	Aluzinc	
Feet	Aluzinc	
Handles	Stainless Steel and Polypropylene plastic	
Measurements		
Height	cm	22.8 cm
Diameter (stove top)	cm	26.7 cm
Weight	Kg	3.0 kg
Fuel Chamber Volume	cm^3	1,152 cm^3
Packaging Dimensions	Cm	29.5 L x 29.5 W x 24.0 H
WBT Results		
Parameter	**Unit**	**Value**
High power thermal efficiency (average of cold start and hot start)	%	49.29%
Firepower	kW	2.2
Boil Time	minutes	25.13
Lifetime		
Warranty	1 year	
Estimated Lifetime	7 to 10 years	

The VPA covers an estimated annual GHG emission reduction and other SDG goals as per the table given below:

SDG 1: (No Poverty) End poverty in all its forms everywhere	Monetary savings related to the purchase of charcoal	62%	Monetary savings in %
SDG 3: (Good health and well-being) Ensure healthy	Perceived air quality	80%	Households in % perceiving improved

lives and promote well-being for all at all ages			air quality
SDG 7: (Affordable and Clean Energy) Target 7.1; Indicator 7.B Proportion of population with primary reliance on clean fuels and technology	Number of sold/distributed	126,247	Number of sold/distributed ICS in use
SDG 8: (Decent work and economic growth) Target 8.5; Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all	Number of jobs created	25	Number of jobs created
SDG 13 Climate Action (mandatory)	Emission Reductions	491,903	tCO2e GS VERs / annum

The validation team has reviewed the applicability criteria for the CCP Labelling in line with the Core Carbon Principles (CCP) Labelling of Gold Standard Verified Emission Reductions, Version 2.0/7/, against the requirements outlined in: Para 1.1.2, 1.2.1, 1.2.2, 1.2.3, 1.2.4, 1.2.5, 2.1.2 and 2.7.1. The validation team confirms that the eligibility criteria are satisfied as follows:

Para No.	CCP Labelling Requirement	Justification by CME	VVB Assessment
1.1.2	It applies to all GS4GG design-certified projects, PoAs, or VPAs—referred to as "projects" hereafter—seeking CCP labelling of: a. GSVERs issued to a project that has applied a methodology version approved by the Integrity Council for the Voluntary Carbon Market (ICVCM), or b. GSVERs to be issued to a project retroactively (up to a maximum of two years) when updating methodology version to an ICVCM-approved methodology version or	The project activity is design-certified applying the methodology TPDDTEC version 3.1. Since TPDDTEC Version 3.1 is an ICVCM-approved methodology version, the project fulfills the applicability criteria for CCP Labelling under clause (a).	VVB has reviewed the project's justification and supporting documentation. The project activity is design-certified applying TPDDTEC Version 3.1/3/, which is an ICVCM-approved methodology, thereby meeting the applicability criteria for CCP Labelling under clause (a).

		new approved methodology, i.e., methodology update.		
	1.2.1	The requirements and procedures outlined in this document shall apply when: a. An applied methodology version is approved as is by ICVCM and requires no updates to the project design (e.g., projects applying ICVCM-approved version 9 of the Clean Development Mechanism (CDM) AMS III.G and complying with the conditions associated with ICVCM approval). b. A project needs revisions or updates to comply with an ICVCM-approved methodology version (e.g., projects applying ICVCM-approved version 4 of the methodology Reduced Emissions From Cooking And Heating – Technologies And Practices To Displace Decentralised Thermal Energy Consumption (TPDDTEC), in which an update to fraction of non-renewable biomass (fNRB) values is required to demonstrate compliance with the conditions associated with ICVCM approval).	In accordance with the applicability criteria under clause (b), an update to the fraction of non-renewable biomass (fNRB) values and the inclusion of a direct charcoal emission factor are required to ensure compliance with the conditions associated with ICVCM approval. Accordingly, a design change request is being submitted to Gold Standard for approval.	The VPA DD has been updated to include the revised fraction of non-renewable biomass (fNRB) value and the direct charcoal emission factor, as required to ensure compliance with ICVCM-approved TPDDTEC version 4. These updates address the conditions set by ICVCM, ensuring that emission calculations accurately reflect project-specific circumstances. Consequently, the project fulfills the CCP labelling requirements, and the updates demonstrate alignment with clause (b) for methodology revisions, supporting eligibility for CCP labelling.

		c. A change in the applied methodology is requested, either updating to a newer version or switching to a different methodology altogether (e.g., projects applying CDM methodology AMS-II.G and requesting a change to the ICVCM-approved version 4 of the methodology Reduced Emissions From Cooking And Heating – Technologies And Practices To Displace Decentralised Thermal Energy Consumption (TPDDTEC).		
	1.2.2	The requirements and procedures outlined in this document do not apply to projects seeking crediting period (CP) renewal. Such projects shall follow the CP renewal requirements and procedures. The project developer shall submit separate requests for a project that introduces changes to update its design for CCP labelling of a retroactive period (if not already issued), i.e., design change and to renew its CP.	The current project is not seeking Crediting Period renewal. Accordingly, the requirements and procedures pertaining to CP renewal do not apply to this project.	According to the CCP labelling document/7/, the requirements and procedures for CP renewal apply only to projects requesting renewal of their crediting period; projects not requesting CP renewal are exempt from these provisions. Since the current project is not pursuing CP renewal, the CME is not required to follow CP renewal procedures, and their statement aligns with the documented criteria. Evidence supporting this assessment can be found in the CCP labelling requirements, which explicitly state that

				separate requests are only needed for projects seeking CP renewal or design updates for retroactive CCP labelling, neither of which applies to the current project.
	1.2.3	A project requesting CCP labelling shall demonstrate compliance with: a. All methodology requirements of applied methodology version covering all key aspects (applicability criteria, project boundary, greenhouse gas (GHG) sources, additionality, baseline, project and leakage emissions, emission reductions quantification, monitoring requirements, etc.). b. Any additional/new requirements published by Gold Standard following the conditions set by ICVCM for the applied methodology version. Necessary information to demonstrate compliance, including Validation & Verification Body (VVB) design change validation report when applicable.	a. Compliance with all applicable requirements of the applied methodology (TPDDTEC, Version 3.1), including applicability criteria, project boundary, greenhouse gas (GHG) sources, additionality, baseline scenario, project and leakage emissions, emission reduction quantification, and monitoring requirements, has been demonstrated in the VPA DD. b. Additional requirements published by Gold Standard in line with the conditions set by ICVCM for the applied methodology version have been addressed and justified in the table provided in this section. c. VVB will assess and confirm compliance with the applicable conditions and requirements in its validation report, including any design	a. VVB has assessed the revised VPA-DD/1/ and confirms that the CME has demonstrated compliance with TPDDTEC Version 3.1 requirements, including applicability criteria, project boundary, GHG sources, additionality, baseline, project and leakage emissions, emission reductions quantification, and monitoring. b. CME has addressed the ICVCM-aligned additional requirements and justified adherence in the revised VPA-DD/1/,

			change validation, where relevant.	ensuring the project meets updated integrity conditions. c. VVB has assessed and confirmed that the project meets the additional requirements for CCP labelling and finds compliance with Gold Standard requirements satisfactory.
	1.2.4	The requirements and procedures outlined in this document limit changes to project aspects that are: a. Permitted under design change requirements and other applicable standards. For example, changing the CP length selected at design certification is not allowed. b. Directly related to applying the latest version of the applicable methodology. For any additional changes, the project developer shall seek clarification by writing to help@goldstandard.org before including them in a scope of design	The Project Developer is not proposing any changes beyond those strictly necessary to ensure compliance with the requirements and conditions associated with ICVCM approval. All other project aspects remain consistent with the previously approved design documentation.	VVB has reviewed the CME's justification and confirms that only changes necessary for ICVCM compliance have been made, with all other project aspects unchanged. This aligns with CCP labelling requirements limiting changes to permitted design updates, as evidenced by the revised VPA-DD/1/.

		change request (e.g., expansion of project installed capacity).		
	1.2.5	Only project developers that are listed in the cover letter as project owner or representative can submit requests for CCP labelling of GSVERs. Buyers of GSVERs or other entities holding GSVERs issued to a project are not permitted to submit such requests.	The Project Developer confirms that only the entities listed in the cover letter as the project owner or representative will submit the CCP labelling request for GSVERs, in full compliance with the ICVCM CCP labelling requirements.	VVB confirms that the CCP labelling request will be submitted only by the entities listed in the cover letter as project owner or representative. With ECOA Climate Capital, an approved VPA implementer and PP, contracted for CCP labelling, the submission fulfills the CCP labelling requirements. Evidence includes the cover letter and the VVB contract.
	2.1.1	a. Update the project design document (PDD) by: i. including all necessary changes to rea. Update the project design document (PDD) by: i. including all necessary changes to relevant sections, and ii. providing both marked-up and clean versions, applicable to all projects, PoAs, and VPAs. b. For POA: Update applicability and inclusion criteria and justifications for future VPA inclusion	a. In line with the design change process, the VPA DD has been updated to incorporate all necessary changes across the relevant sections. Both marked-up and clean versions of the updated document have been prepared and submitted to the VVB for further review. b. Not applicable, as PD has not applied for design change of PoA c. Updating the additionality demonstration is not required, as the project continues to meet the additionality requirements as	a. VVB has reviewed the CME's submission and confirms that the VPA DD/1/ has been updated in accordance with the design change process to incorporate all necessary changes across relevant sections. Both marked-up and clean versions of the updated document have been provided, allowing for clear verification of modifications. Evidence includes the submitted updated VPA DDs, demonstrating that all required changes have been captured and are ready for VVB review, consistent

			c. update the additionality demonstration, if required. d. Reassess the baseline scenario, where applicable e. Recalculate ex-ante GHG emissions for the remaining CP only f. Update to monitoring plan with: i. Revision of monitoring methods and approaches. ii. Update of quality control measures, including uncertainty quantification and adjustment approach. iii. Adjustment of sampling approach, if applicable g. Review and update monitoring approaches for Sustainable Development Goal (SDG) impacts other than SDG 13, if project outputs have changed h. Provide ex-ante re-estimation for eligible period (remaining)	described in Section B.5 of the VPA DD. d. There is no change in the baseline scenario. The baseline survey conducted during 2021 remains valid and continues to comply with ICVCM requirements. e. Following the update to the fNRB value, the ex-ante GHG emissions have been re-calculated. Since the revision is applicable from the start of the crediting period, the recalculation has been applied for the entire CP, thereby ensuring consistency with the applied methodology requirements. f. The monitoring approach has been revised to conservatively address uncertainties, including potential impacts on fNRB. Instead of monitoring leakage, the Project Developer has applied a conservative default adjustment factor of 0.95 to the calculated emission reductions, equivalent to a 5% leakage deduction, to account for potential leakage emissions. g. The calculation of SDG 15 impacts has	with CCP labelling requirements. b. VVB notes that the CME has not applied for a design change of a PoA. Consequently, updates to applicability, inclusion criteria, or justifications for future VPA inclusion are not required. This is consistent with CCP labelling requirements. c. VVB has reviewed the revised VPA-DD/1/ and confirms that additionality has not been updated as the project continues to meet the additionality criteria outlined in section B.5 of the VPA-DD. d. The VVB has reviewed the CME's justification and confirms that reassessment of the baseline scenario is not required, as there have been no changes to the baseline conditions. The baseline survey conducted in 2021 remains valid and continues to meet ICVCM requirements. e. VVB has reviewed the revised ER sheet and confirms that the ex-ante GHG emissions have been

				been updated to reflect the revised fNRB value. h. The applied design change is applicable from MP5 (i.e. monitoring period starting from 25/02/2024) for this VPA. Therefore, within 2 years retroactive period limit.	recalculated following the update to the fNRB value. Although the CCP labelling requirement specifies recalculation for the remaining crediting period, the CME applied the revision to the entire crediting period to maintain consistency with the applied methodology. f. VVB has assessed the revised monitoring approach and confirms that it incorporates the updated fNRB value and applies a conservative default adjustment factor of 0.95 to the calculated emission reductions, equivalent to a 5% deduction for potential leakage emissions. This approach aligns with TPDDTEC methodology requirements and ensures that emission reductions are conservatively estimated, consistent with CCP labelling requirements. g. VVB has assessed the revised ER sheet and confirms that the calculation of SDG 15 impacts has been updated to reflect the revised fNRB value. This ensures that SDG-related monitoring remains

				accurate and consistent with CCP labelling requirements. Evidence includes the revised SDG 15 monitoring section in the VPA DD. h. VVB has reviewed and confirms that the ex-ante GHG emission reductions have been re-estimated and included in the ex-ante ER calculation sheet for the entire eligible crediting period. This ensures consistency with the updated fNRB value and the applied methodology, aligning with CCP labelling requirements.
	2.1.2	The project developer shall clearly mention the overall CP separately as issued and to be issued in the future that may be requested for labelling of CCPs.	The applied design change is applicable from MP5 (i.e. monitoring period starting from 25/02/2024) for this VPA. Therefore, within 2 years retroactive period limit	As CME is seeking CCP labelling for MP5 for MP (25/02/2024 to 01/10/2024) which is within 2 years retroactive period limit and therefore CCP labelling is eligible
	2.7.1	The project developer shall also confirm that the project complies with all applicable statutory requirements related to the project.	The project developer confirms that the project complies with all applicable statutory requirements related to the project. No approvals/licenses required from the environmental and/or regulatory agencies.	VVB confirms that there are no additional statutory requirements applicable to the project, and therefore, this CCP labelling requirement is fulfilled.
	CCP conditions for TPDDTEC version 2.0, 3.0, 3.1			

	1	A reassessment of baseline emissions has been conducted at least once within the five years immediately preceding the start of an issued monitoring period No emission reductions are claimed from cookstoves that are aged beyond their technical life - unless replaced or retrofitted with a performance guarantee	The baseline survey for this VPA was conducted in 2021, which falls within five years prior to the start of the current monitoring period. Hence, the requirement is fulfilled. Technical lifetime if ICS is 7-10 years. Any stove that has aged beyond 10 years lifetime will be permanently removed from any emission reduction crediting. The PD will conduct annual usage surveys throughout the VPA crediting period. All stoves which are surveyed and found to have been discontinued by the end users, either for end user preferences or due to any damage to the stove in that period will be removed from the computation of emissions reductions. This safeguard, a combined review of the weighted monitored usage rate and systemic updates to the project database, will eliminate the risk of crediting any stoves which have aged out of the project during the tail end of the stove lifespan (years 7 – 10).	The VVB has assessed the CME's justification and confirms that the requirement for baseline reassessment has been met, as the baseline survey for this VPA was conducted in 2021, within five years prior to the start of the current monitoring period. Additionally, the project implements safeguards to ensure that no emission reductions are claimed from cookstoves beyond their technical life of 7–10 years. Stoves aged beyond 10 years will be permanently removed from crediting calculations, and annual usage surveys will identify stoves discontinued by end users. The combination of weighted monitored usage rates and systematic updates to the project database effectively prevents crediting of stoves that have aged out.

	2	Project emissions from transport of fuels are either proven to be negligible (<5%) or accounted for in emission reduction calculations.	The end users procure charcoal from nearby markets or retail shops, resulting in negligible project emissions from fuel transportation. To conservatively address any uncertainty, including potential impacts on fNRB, the Project Developer has applied a 5% leakage factor.	VVB has reviewed the CME's justification and confirms that project emissions from fuel transport are negligible, as end users procure charcoal from nearby markets or retail shops. To address any residual uncertainty, including potential impacts on the fNRB, the Project Developer has conservatively applied a 5% leakage factor.
	3	Emission reductions are excluded or discounted where the project is found to displace or operate alongside another mitigation activity	If a project household is found to be using a stove associated with another carbon project, that household will be excluded from the project database. Consequently, no emission reductions from such a household will be considered for the entire crediting period, thereby ensuring that there is no overlap or double counting with other mitigation activities.	VVB has reviewed the project database management procedures and monitoring approach described in the VPA DD and confirms that emission reductions from households participating in another carbon project are excluded from the project database. This ensures that no emission reductions are credited for overlapping or concurrent mitigation activities, thereby preventing double counting.
	CCP conditions for TPDDTEC version 4.0 as required in CCP conditions of TPDDTEC version 2.0, 3.0, 3.1:			
	1	The default fNRB value from the latest version of CDM Tool 33 is applied for emission reductions achieved on	The fNRB value has been sourced from the latest version (03.0) of CDM Tool 33. This satisfies the CCP	The VVB has reviewed the updated VPA DD/1/ and references to CDM Tool 33 v03.0 and confirms that the fNRB value has been

			or before 31 December 2025, or The source of data for fNRB in mitigation activities is from the modelling fuelwood savings scenarios (MoFuSS) model per CCP eligible programme–approved project documentation	applicability condition on the following basis: • The use of CDM Tool 33 v03.0 default values is explicitly recognized as an eligible quantification approach under CCP. • The default values in CDM Tool 33 are derived from the MoFuSS model, as confirmed in paragraph 17, section 3.3 of the CDM Methodologies Panel Information Note (Version 03.0)	sourced from the latest version (03.0) of CDM Tool 33, in line with CCP labelling requirements. This approach satisfies the applicability condition, as the use of CDM Tool 33 v03.0 default values is explicitly recognized under CCP and these default values are derived from the MoFuSS model, as documented in paragraph 17, section 3.3 of the CDM Methodologies Panel Information Note (Version 03.0). Evidence includes the, demonstrating compliance with CCP requirements for fNRB values.
		2	Fuel consumption is determined either by using a kitchen performance test (KPT) or controlled cooking test (CCT) or methodology default values with cross-checks on fuel savings. for charcoal projects, a direct charcoal emission factor (which may include production emissions) or a wood-to-charcoal conversion factor of four to one is used.	Fuel consumption for this VPA will be determined through a Kitchen Performance Test (KPT), in line with the applicability condition of the methodology. Direct charcoal emission factor is sued for emission reduction calculation. Therefore, wood to charcoal conversion factor is not applicable for this VPA.	The VVB has reviewed the revised VPA DD detailing the KPT methodology and the use of the direct charcoal emission factor, demonstrating compliance with CCP labelling requirements and confirms that fuel consumption for the VPA will be determined using a Kitchen Performance Test (KPT), consistent with the methodology's applicability conditions. For

				emission reduction calculations, a direct charcoal emission factor is applied, making the wood-to-charcoal conversion factor unnecessary for this project.
	Additional requirements as per 6.1.5 iv of CCP labelling requirement			
	1	Eligibility CCP labelling is limited to improved cookstove activities only — where the rated thermal efficiency of the project stove shall be at least 20%. Projects applying involving biodigesters and/or safe water supply activities are not eligible.	The improved cookstoves to be distributed under the VPA have a rated thermal efficiency from 42.6% - 49.29%, exceeding the minimum requirement of 20%, thus meeting the CCP Labelling applicability condition.	The VVB has assessed the stove specifications and efficiency test results and confirms that the improved cookstoves deployed under the VPA meet the CCP labelling eligibility requirement for cookstove activities. The rated thermal efficiency of the project stoves ranges from 42.6% to 49.29%, which is well above the minimum threshold of 20% specified under the CCP criteria. No biodigesters or safe water supply technologies are included in the project, and thus no exclusions apply as confirmed during the remote audit.
	2	f_{NRB} As per ICVCM conditions	f_{NRB} value has been sourced the latest version 03.0 of CDM Tool 33. The use of CDM Tool 33 ver. 03.0 default values is recognized as an eligible ICVCM CCP	VVB confirms that the project has applied the CDM Tool 33 Version 03.0 default values for fNRB, which is an eligible quantification approach under ICVCM CCP

			quantification approach.	requirements. As these default values are formally recognized and derived from the MoFuSS model, the project's approach fully satisfies the CCP labelling requirement.
	3	Charcoal conversion factor As per ICVCM conditions	Charcoal conversion factor is not applicable for the current VPA	The requirement related to the use of a direct charcoal emission factor or a wood-to-charcoal conversion factor is not applicable, as the project involves fuelwood, not charcoal. Therefore, the condition does not apply to this VPA, and the requirement is considered fulfilled.
	4	Threshold - Baseline fuel consumption The project must have determined baseline fuel consumption using a baseline Kitchen Performance Test (KPT). The baseline fuel consumption results must be below the threshold values i.e., 0.75 tonnes/person/year of fuelwood or 0.20 tonnes/person/year for charcoal.	A baseline Kitchen Performance Test (KPT) was conducted to determine charcoal consumption for the VPA. The results indicate a baseline fuel consumption of 0.16 tonnes/person/year, which is below the threshold value of 0.75 tonnes/person/year for fuelwood.	VVB has reviewed the baseline fuel consumption assessment and confirms that the per capita baseline consumption of 0.16 tonnes/person/year, derived from household KPT data, is below the 0.75 tonnes/person/year threshold specified under the GS ICVCM CCP requirements. Accordingly, the project complies with the applicable baseline fuel consumption criteria.
	5	Fuel Saving	Based on the efficiency of the cookstoves, the	VVB has reviewed the CME's justification and confirms that the

	The project must demonstrate fuel savings through a cross-check based on the proportional energy efficiency of baseline and project stoves. Project developers shall use baseline efficiency data (default value 10% for three-stone fires, 20% for charcoal stoves) and project stove efficiency data as manufacturer specifications, third-party publications, or Water Boiling Test (WBT) results. For the cross-check of fuel saving in most recent years, developers shall conduct WBTs for project stoves of representative age groups, testing a minimum of 3 stoves per age group to determine the average efficiency of project stove.	expected fuelwood savings have been calculated as 59.42%, using the formula: % Fuelwood Savings = (1 – (Baseline Stove Efficiency / Project Stove Efficiency)) × 100. However, the estimated fuelwood saving reported for the current VPA is 55.86%. Actual fuel saving will be determined by conducting project KPT in project scenario.	project has conducted the required fuel-savings cross-check using proportional stove efficiencies, consistent with CCP labelling requirements. Using the default baseline stove efficiency and the project stove efficiency, the calculated theoretical fuelwood savings of 59.42% exceed the ex-ante estimated savings of 55.86%, demonstrating that the project's applied savings are conservative and therefore acceptable. As permitted under CCP requirements for early monitoring periods, the project will determine actual fuel savings through Kitchen Performance Tests (KPT) during subsequent verifications. This approach ensures that future monitoring will incorporate real-world usage and efficiency conditions. The project is therefore assessed as compliant with the CCP fuel-savings cross-check requirement.
6	Reassessment of Baseline The project must have reassessed and	Reassessment of the baseline will be conducted at the time	The VVB has reviewed the CME's justification and confirms that a reassessment of the baseline is not

			updated the baseline fuel consumption at the time of crediting period renewal, as required by the methodology	of renewal of crediting period.	required for this CCP design change. The project is undertaking a voluntary upgrade to align with ICVCM CCP requirements, and is not seeking a crediting period renewal—therefore, baseline revalidation requirements linked to CP renewal do not apply. Additionally, the existing baseline scenario is based on an assessment conducted within five years of the design change, meeting the validity criteria set under CCP requirements. Accordingly, the project remains compliant with the applicable baseline provisions.
		7	Emission Reductions Beyond Technical Life of the Technology The project must have claimed emission reductions for project technology only up to the end of its technical lifetime (evidence needed), or project has measures in place to ensure that end users have received replacement technology before end of the technical lifetime of the project stoves	Technical lifetime if ICS is 7-10 years. Any stove that has aged beyond 10 years lifetime will be permanently removed from any emission reduction crediting. The PD will conduct annual usage surveys throughout the VPA crediting period. All stoves which are surveyed and found to have been discontinued by the end users, either for end user preferences or due to any damage to the stove in that period will be removed	VVB confirms that the project's approach to managing stove longevity complies with CCP requirements. The validated VPA establishes a technical lifetime of 7–10 years for the improved cookstoves. Through annual usage surveys conducted throughout the crediting period, any stove that has exceeded the 10-year technical lifetime will be permanently removed from emission reduction calculations. The

			from the computation of emissions reductions. This safeguard, a combined review of the weighted monitored usage rate and systemic updates to the project database, will eliminate the risk of crediting any stoves which have aged out of the project during the tail end of the stove lifespan (years 7 – 10).	same procedure will be applied to stoves voluntarily discontinued by end users. This systematic monitoring and removal process ensures that no emission reductions are credited beyond the valid operational life of the stoves, thereby fulfilling the CCP requirement.
	8	Avoidance of double claiming and double counting The project shall conduct an assessment and demonstrate that the project activity does not involve stoves included in any other voluntary market or CDM project activity/PoA and strive not to displace the cooking devices of another CDM or voluntary project/PoA	If a project household is found to be using a stove associated with another carbon project, that household will be excluded from the project database. Consequently, no emission reductions from such a household will be considered for the entire crediting period, thereby ensuring that there is no overlap or double counting with other mitigation activities.	VVB has assessed the safeguards presented by the project and confirms that the measures in place are adequate to prevent double counting, consistent with CCP requirements. As described in Section A.3 of the VPA DD, the CME has implemented a robust customer screening and prospecting system that ensures project stoves are distributed only to households meeting the baseline conditions and not already using improved cookstoves. This effectively prevents overlap with other mitigation activities. Additionally, the VVB notes that households found during annual monitoring surveys to have owned or used improved cookstoves

				prior to or during the project period will be removed from the project database and excluded from emission reduction calculations. These procedures collectively demonstrate a strong safeguard against double counting.
	9	Project emissions from transport of fuels Where applicable, the project developer shall demonstrate that stove and/or fuel transport related emissions are negligible (below 5%) or are accounted for	The end users procure charcoal from nearby market or retail shops, resulting in negligible project emissions from fuel transportation. To conservatively address any uncertainty, including potential impacts on fNRB, the Project Developer has applied a 5% leakage factor.	1. VVB has reviewed the baseline and usage survey and therefore confirms that the same fuel type, i.e., charcoal is used in both the baseline and project scenarios. From the usage survey, it is evident that the majority of households purchase charcoal from nearby markets or local retail shops, or obtain it from nearby sources such as community vendors. As a result, households do not incur any significant transportation-related emissions associated with the delivery of charcoal from the source to the household. This supports the conclusion that transportation emissions are negligible in the baseline scenario for charcoal use.

					Moreover, it is noted that the charcoal sources and procurement distances remain the same for end users in both the baseline and project scenarios. The introduction of the project stoves does not result in any change to the fuel procurement or usage pattern. On the contrary, due to the higher efficiency of the project stoves, the quantity of charcoal required is reduced. This directly satisfies the requirement to demonstrate that no incremental transport emissions occur under the project. Furthermore, the CME has provided supporting literature indicating that charcoal transport emissions are negligible compared with production and combustion emissions, which reinforces the justification that transport-related emissions can be considered insignificant and therefore need not be accounted for in the emission reduction calculation. However, the CME has applied a 5% leakage factor

				thereby fulfilling the requirement.

Findings	No findings were raised.
Conclusion	VVB confirms that the given explanation of project activity provided in PRC VPA-DD is in accordance with what was confirmed during the remote audit and based on the referred documents as mentioned in appendix 2.

D.3. Applicability of methodology

Means of validation	The project correctly applies the monitoring methodology "TPDDTEC", "Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC)", version 3.1 as indicated in the design change VPA-DD. The VPA involves the distribution of highly efficient improved charcoal stoves for use in the urban and peri- urban households of the host country Somalia. These project ICS reduce woody biomass consumption, thus reducing the GHG emissions from thermal energy consumption. The VPA implementor and the CME for the project activity is same i.e., BURN Manufacturing Co. The project ICS has a Unique Serial Number (USN) which ensures there is no double counting of emissions. The project ICS has a capacity of less than the maximum 150 kW per unit. The power output of the stove models ranges from 2.05 to 2.21 kW. The validation team has checked the domestic and international registries (CDM/ VCS/GCC and other) to confirm the current project is not registered with any of these registries. The VVB team has checked and confirmed that there is no risk of double counting concerning national climate policies for the project, also with reference to the existing NDC target of the host country (Somalia). The VVB team has checked and confirmed that the project activity is not registered with any other compliance or voluntary market-based mechanism. The CME confirms conducting awareness campaigns in the host country from time to time to promote the usage of project ICS and reduce the usage of the traditional baseline stoves. The project fuel tests during the monitoring surveys conducted by the CME will consider the fuel consumptions of the baseline devices also in the project emissions for a conservative approach. Additionally, the stakeholders during the local stakeholder consultation were informed about the transfer of carbon rights from the project beneficiaries to the CME. The carbon credit ownership transfer is further ensured with the written message on the strip of project ICS box.
Findings	No findings were raised.
Conclusion	VVB confirms that the selected baseline and monitoring methodologies have been approved by the GS4GG and are applicable to the project, which complies with all the applicability conditions therein the selected versions are valid at the time of submission of crediting period. It is also confirmed that the methodology is correctly applied by comparing them with the actual text of the applicable versions.

D.4. Clarification on applicability of methodology, tool and/or standardized baseline

Means of validation

The project activity proposes to The ex- ante parameters viz., '$EF_{b,CO2}$, $EF_{b,non-CO2}$, $EF_{p,CO2}$, $EF_{p,non-CO2}$, NCV_b, NCV_p and $fNRB_{i,y}$' have been updated and the parameters '$EF_{ch,prod,CO2}$', 'Wood to charcoal conversion factor' and '$\eta_{new,i}$' have been removed to comply with para 6.1.1 of the GS4GG CCP Labelling Requirements v2.0/7/.

The VPA-DD previously considered the emission factors for wood fuel. However, now the emission factors considered are of charcoal. Consequently, the values of the parameters 'NCV_b' and 'NCV_p' have been updated and the parameter 'Wood to charcoal conversion factor' has been removed. The value of the parameter 'fNRB' has been updated and the value is now sourced from CDM Tool 33 version 3.0/8/.

Additionally, during the current design change, the value of the parameter '$LE_{p,y}$' has been updated from '0' to 0.18 which is a methodology default value. This change is a conservative approach since this will help to account for the uncertainty factors implied by Gold Standard. These factors are designed to capture a wider range of potential leakage impacts—not just those that would have been identified through a leakage survey. The parameter $\eta_{new,i}$ has also been removed during the current design change since the CME conducts KPT surveys instead of WBT tests.

The comparison of the older values and the new updated values proposed during the current design change is as follows:

Parameter	Old Value	New Value
$EF_{b,CO2}$	112 tCO2e/TJ	197.15 tCO2e/TJ
$EF_{b,non-CO2}$	8.4 tCO2e/TJ for CH_4 1.06 tCO2e/TJ for N_2O	92.29 tCO2e/TJ
$EF_{p,CO2}$	112 tCO2e/TJ	197.15 tCO2e/TJ
$EF_{p,non-CO2}$	8.4 tCO2e/TJ for CH_4 1.06 tCO2e/TJ for N_2O	92.29 tCO2e/TJ
NCV_b	0.0156 TJ/ton	0.0295 TJ/ton
NCV_p	0.0156 TJ/ton	0.0295 TJ/ton
$fNRB_{i,y}$	84.1%	64%
$LE_{p,y}$	0	0.18

Findings

CL01 and CL02 were raised and resolved successfully.

Conclusion

The VVB team verified that during the current design change activity, some ex- ante parameters viz., '$EF_{b,CO2}$, $EF_{b,non-CO2}$, $EF_{p,CO2}$, $EF_{p,non-CO2}$, NCV_b, NCV_p and $fNRB_{i,y}$' have been updated and the parameters '$EF_{ch,prod,CO2}$', 'Wood to charcoal conversion factor' and '$\eta_{new,i}$' have been removed to align with the requirements mentioned under para 6.1.1 of GS4GG CCP Labelling Requirements, version 2.0/7/. The calculations for the determination of the emission factors mentioned in the 'EMISSION FACTOR' tab of 'BURN GS PoA_VPA 1_Somalia_ER calculation including baseline and project KPT results' excel sheet have been assessed by the validation team and found to be acceptable. The fNRB value has been sourced from 'Table 3' under para 18 of Tool 33 version 3.0. Additionally, the monitoring frequency for the parameter '$LE_{p,y}$' has been removed and a constant value of 0.18 (5%) has been considered which is a methodology default value. The VVB team has confirmed these details from the CME representatives during the remote audit.

Due to these changes in the ex- ante and ex- post parameters in the VPA-DD, the emission reductions determined for the fifth monitoring period from 25/02/2024 to 01/10/2024 (inclusive of both days) have reduced from 352,717 tCO2e to 234,205 tCO2e. The updated MR version 4.0/12/ dated 18/08/2025 and ER sheet 'Ex Post ER

	calculations SOM VPA 001 MP5 (CONFIDENTIAL)' demonstrate the updated calculations which have been verified by the assessment team and hence, acceptable.

D.5. Project boundary

Means of validation	There have been no changes in the project boundary of the VPA mentioned in the registered VPA-DD. The project boundary of the VPA is clearly defined as the country of Somalia with the geographical coordinates: Latitude: 5° 09' 47.83" N Longitude: 46° 12' 13.32" E. An operational diagram of the project boundary, physically delineating the project activity is presented in section B.3 of the design change VPA-DD. The source of baseline emissions included in baseline calculation is the heat production. No emissions from the production of fuel and transport of fuel have been considered in the baseline emissions. The project emissions includes the emissions from the heat delivery only i.e., burning of fuel in the project scenario. No project emissions from the production and transport of fuel are considered.
Findings	No finding was raised.
Conclusion	VVB confirmed that the project boundary is clearly defined and in accordance with the applied methodology, TPDDTEC, Version 3.1. which was further confirmed during the remote audit with CME representatives.

D.6. Establishment and description of baseline scenario

Means of validation	The baseline scenario for the project activity is already defined in the applied methodology. According to the approved methodology TPDDTEC, the baseline scenario is defined by the typical baseline consumption patterns the urban and peri-urban households in a population that is targeted for adoption of the project technology. The CME conducted baseline surveys along with KPT surveys on a total of 119 households from the urban and peri- urban households of Federal Republic of Somalia from October to November 2020 and from March to April 2021. The KPT protocol published at Clean Cooking Alliance website and Annex 4 of the TPDDTEC methodology and the survey questionnaire outlined in Appendix 2 'Survey format A: Baseline fuel consumption pattern' of the CDM methodology AMS-II.G were followed. The results clearly stated that majority of the population is using charcoal as fuel which is the same fuel deployed by the project ICS 'Jikokoa'. Since the baseline is defined by the approved methodology; no further analysis is required.
Findings	No findings were raised.
Conclusion	VVB confirmed that the baseline scenario is clearly defined and in accordance with the applied methodology, TPDDTEC version 3.1.

D.7. Project Eligibility

Means of validation	The project activity aligns with the eligibility criteria outlined in section 3.1.1 of the GS4GG Principles & Requirements document, as detailed below:

	The project activity involves the distribution of energy efficient improved cookstoves 'Jikokoa' in the urban and peri- urban households of Federal Republic of Somalia. The VPA adheres to the GS4GG approved methodology TPDDTEC version 3.1/3/, large scale project guidelines and there is no suppressed demand. The project implementation does not require any EIA study as per the host country requirements. The ownership of the carbon credits generated by the use of project ICS reside solely with the CME. The end users waive off their carbon rights by cutting the strap on the box of the project ICS or it is clearly stated on the warranty booklet or by signing the end- user agreements on the monitoring application. The VPA implementor has submitted a declaration to GS for no diversion of ODA. The validation team has checked the domestic and international registries (CDM/ VCS/GCC and other) to confirm the current project is not registered with any of these registries. The VVB team has checked and confirmed that there is no risk of double counting concerning national climate policies for the project, also with reference to the existing NDC target of the host country (Somalia). VVB team has checked and confirmed that the project activity is not registered with any other compliance or voluntary market-based mechanism. Therefore, the project activity is deemed to be eligible under gold standard GS4GG.
Findings	No findings were raised.
Conclusion	Based on the assessment against the applicable Gold Standard for the Global Goals (GS4GG) eligibility criteria, the proposed energy efficient improved cookstoves distribution project is found to be compliant. The project aligns with the approved methodology, falls under eligible project types without requiring separate approval, contributes to sustainable development in the host country, and does not involve any excluded technologies or practices. Therefore, the project activity is deemed eligible under GS4GG.

D.8. Demonstration of additionality

Means of validation	There are no changes in the additionality criteria of the VPA. Since, the project is located in Federal Republic of Somalia which is a LDC, the VPA continues to be additional in accordance with para 4.1.9 (b) of Community Services and Activity Requirements version 1.2/4/. The assessment team further confirmed the same from the revised PDD version 05 dated 18/08/2025.
Findings	No Findings were raised
Conclusion	The VPA continues to be additional according to para 4.1.9 (b) of Community Services and Activity Requirements version 1.2/4/ since the host country for project is Somalia which is a LDC country. The VVB team confirmed from the CME representatives during the remote audit that there have been no changes in the additionality criteria of the VPA.

D.9. Sustainability Assessment

Means of validation	As per GS4GG Safeguarding principles and requirements version 2.1, all projects shall

	conform to the Gold Standard for the Global Goals Safeguarding Principles & Requirements. During the current design change, there are no impacts observed on the Safeguarding Principles due to the changes in the ex- ante parameters. Therefore, as per the Appendix 1 of the registered VPA- DD and the design change VPA-DD, no Safeguarding Principle is applicable for this VPA.
Findings	No findings were raised.
Conclusion	The design changes do not fall under this category. Same has been checked and confirmed during the remote audit inspection by the VVB and was found acceptable.

D.10. Emission reductions

Means of validation	The calculation of emission reductions is carried out in a conservative manner providing documentation and references to data sources. As checked by the VVB, approved GS4GG methodology, TPDDTEC version 3.1 has been applied for the calculations. The methodology directly provides the following equation for emission reductions, without separate baseline, project or leakage emission reduction equations. $\mathbf{ER_y = \Sigma_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * EF_{fuel,CO2} + EF_{fuel,nonCO2})) - \Sigma LE_{p,y}}$ Where: $\Sigma_{b,p}$ Sum over all relevant (baseline b/ project p) couples $N_{p,y}$ Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y $U_{p,y}$ Cumulative usage rate for technologies in project scenario p in year y, based on cumulative adoption rate and drop off rate revealed by usage surveys (fraction) $P_{p,b,y}$ Specific fuel savings for an individual technology of project p against an individual technology of baseline b in year y, in tons/day, as derived from the statistical analysis of the data collected from the field tests $f_{NRB,b,y}$ Fraction of biomass used in year y for baseline scenario b that can be established as non- renewable biomass $NCV_{b,fuel}$ Net calorific value of the fuel that is substituted or reduced. $EF_{b,fuel,CO2}$ CO_2 emission factor of the fuel that is substituted or reduced. $EF_{b,fuel,nonCO2}$ Non-CO_2 emission factor of the fuel that is reduced $LE_{p,y}$ Leakage for project scenario p in year y (tCO_2e/yr) Therefore, the emission reduction equals to baseline emissions. The overall average of the estimated calculated emissions is 491,903 tCO_2/year. All the assumptions and data used by the project participants are listed in the VPA-DD including their references and sources. All the documentation used by the CME as the basis for assumptions and the sources of data are quoted and interpreted in the VPA-DD and the Emission Reduction calculation excel sheet.
Findings	No findings were raised.
Conclusion	In VVB's opinion: (a) All assumptions and data used by the CME are listed in the VPA-DD; (b) All documentation used by the CME as the basis for assumption and source of

	data is correctly quoted and interpreted in the VPA-DD; (c) The baseline methodology and methodological tools have been applied correctly to calculate project emissions, baseline emissions, leakage and emission reductions; (d) All estimates of the baseline and project emissions can be replicated using the data and parameters values provided in the VPA-DD and ERs spreadsheet. (e) Due to these changes in the ex- ante and ex- post parameters in the VPA-DD, the emission reductions determined for the fifth monitoring period from 25/02/2024 to 01/10/2024 (inclusive of both days) have reduced from 352,717 tCO2e to 234,205 tCO2e. The updated MR version 4.0/12/ dated 18/08/2025 and ER sheet 'Ex Post ER calculations SOM VPA 001 MP5 (CONFIDENTIAL)' demonstrate the updated calculations which have been verified by the assessment team and hence, acceptable.

D.11 Monitoring Plan:

Means of validation

The monitoring plan (data and parameters fixed ex ante) includes all data and parameters fixed ex ante required by the applied methodology and baseline tool.

Parameters ex-ante:

S.no	Data/Parameter	Unit	Value applied	Source
1.	$EF_{b,CO2}$	tCO_2/TJ	197.15	Default 2006 IPCC Guidelines for National Greenhouse Gas Inventories, chapter 2 and 4
2.	$EF_{b,non\text{-}CO2}$	tCO_2/TJ	92.29	Default 2006 IPCC Guidelines for National Greenhouse Gas Inventories, chapter 2 and 4
3.	$EF_{p,CO2}$	tCO_2/TJ	197.15	Default 2006 IPCC Guidelines for National Greenhouse Gas Inventories, chapter 2 and 4
4.	$EF_{p,non\text{-}CO2}$	tCO_2/TJ	92.29	Default 2006 IPCC Guidelines for National Greenhouse Gas Inventories, chapter 2 and 4
5.	NCV_b	TJ/ton of charcoal	0.0295	IPCC default 2006, volume 2, chapter 1 (Table 1.2)
6.	NCV_p	TJ/ton of charcoal	0.0295	IPCC default 2006, volume 2, chapter 1 (Table 1.2)
7.	$fNRB_{i,y}$	Fraction	0.64	CDM Tool 33 version 03.0 "Methodological tool for Default values for common parameters"
8.	$P_{b,y}$	t/household/year	1.028	Baseline KPT survey

During the current design change validation, the parameters '$EF_{b,CO2}$, $EF_{b,non\text{-}CO2}$, $EF_{p,CO2}$, $EF_{p,non\text{-}CO2}$, NCV_b, NCV_p and $fNRB_{i,y}$' have been updated and the parameters '$EF_{ch,prod,CO2}$' and 'Wood to charcoal conversion factor' have been removed to comply with para 6.1.1 of the GS4GG CCP Labelling Requirements v2.0. The VVB team has confirmed the same from the CME representatives during the remote audit.

Parameters ex-post:

Parameter	Data Unit	Description	Frequency
$N_{p,y}$	Number of project cookstove credited (units)	Cookstoves in the project database for project scenario p through year y	Continuously
$U_{p,y}$	Percentage	Usage rate in project scenario p during year y	Annual
$P_{p,y}$	t/household/year	Quantity of charcoal that is consumed in project scenario p during year y	Every 02 years
$LE_{p,y}$	tCO2e per year	Leakage in project scenario p during year y	Methodology default
SDG 1 (Monetary savings related to the purchase of charcoal)	Percentage	Monetary savings related to the purchase of charcoal	Biennial
SDG 3 (Perceived air quality)	Percentage	Smoke levels, itchy eyes and breathing problems	Biennial
SDG 7 (Number of sold/distributed ICS in use)	Number of units in use	Number of sold/distributed ICS in use	Continuously
SDG 8 (Number of jobs created)	Number	Number of jobs created	Annually

During the current design change, the value of the parameter '$LE_{p,y}$' has been updated from '0' to 0.18 which is a methodology default value. This change is a conservative approach since this will help to account for the uncertainty factors implied by Gold Standard. These factors are designed to capture a wider range of potential leakage impacts—not just those that would have been identified through a leakage survey. The parameter $\eta_{new,i}$ has also been removed during the current design change since the CME conducts KPT surveys instead of WBT tests.
The calculations for the determination of the emission factors mentioned in the 'EMISSION FACTOR' tab of 'BURN GS PoA_VPA 1_Somalia_ER calculation including baseline and project KPT results' excel sheet have been assessed by the validation team and found to be acceptable. The fNRB value has been sourced from 'Table 3' under para 18 of Tool 33 version 3.0. Additionally, the monitoring frequency for the parameter '$LE_{p,y}$' has been removed and a constant value of 0.18 (5%) has been considered which is a methodology default value.

Findings	CL01 and CL02 were raised and resolved successfully.
Conclusion	VVB confirms that sustainability monitoring plan and indicators included in the VPA-DD conform to the sustainable development requirements of GS4GG. The calculations for the determination of the emission factors mentioned in the 'EMISSION FACTOR' tab of 'BURN GS PoA_VPA 1_Somalia_ER calculation including baseline and project KPT results' excel sheet have been assessed by the validation team and found to be acceptable. The fNRB value has been sourced from 'Table 3' under para 18 of Tool 33 version 3.0. Additionally, the monitoring frequency for the

	parameter '$LE_{p,y}$' has been removed and a constant value of 0.18 (5%) has been considered which is a methodology default value. The VVB team has confirmed these details from the CME representatives during the remote audit. Due to these changes in the ex- ante and ex- post parameters in the VPA-DD, the emission reductions determined for the fifth monitoring period from 25/02/2024 to 01/10/2024 (inclusive of both days) have reduced from 352,717 tCO2e to 234,205 tCO2e. The updated MR version 4.0/12/ dated 18/08/2025 and ER sheet 'Ex Post ER calculations SOM VPA 001 MP5 (CONFIDENTIAL)' demonstrate the updated calculations which have been verified by the assessment team and hence, acceptable.

D.12 Duration and crediting period:

Means of validation	The project is already listed in the GS4GG registry[3]. This design change is for the first crediting period. The length of crediting period is defined as 5 years and is planned to be renewed twice. Details are as provided below: 1st crediting period: 02/10/2019 to 01/10/2024 2nd crediting period: 02/10/2024 to 01/10/2029 3rd crediting period: 02/10/2029 to 01/10/2034
Findings	No findings were raised.
Conclusion	VVB confirmed that this is the first crediting period of the registered GS4GG project activity.

D.13 Local stakeholder consultation

Means of validation	Stakeholders were invited to local stakeholder meetings by the CME which were held on 20/10/2020, 21/10/2020 and 22/10/2020 at the VPA level. The stakeholder feedback round was from 19/01/2021 to 19/03/2021. Since then, the CME has maintained various means for ongoing communication with the local stakeholders which are as follows: **1.** Continuous Input and Grievance Expression Process Book is placed at the CME's offices in Somaliland viz., Hargeisa office, Mogadishu Office and Garowe Office. **2.** GS Contact (mandatory): help@goldstandrad.org **3.** Telephone: BURN Kenya: +254-706585629 BURN Somalia: 368 **4.** Email access: info@burnmfg.com No additional LSC was conducted by the CME before the current design change process since, there is no impact of the updated parameters on the local stakeholders.

[3] https://registry.goldstandard.org

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SECTION E. Internal quality control

As a final step for validation assessment, the final documentation, including the validation Report for design change, 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 for Design change 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's Project Manager and/or Technical Support. For final approval, the final set of documents are prepared by the VVB Technical Manager or its deputy and signed by the authorized signatory of the VVB. 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 VVB authorized personnel who are not part of those teams. If the final set of documents has been satisfactorily approved, a request of registration is submitted to the Gold Standard along with the relevant documents.

SECTION F. Validation opinion

Applus+ Certification has performed a Design Changes validation of the "GS 10789 VPA1: Efficient and Clean Cooking for households in Somalia". The validation for design changes was performed in accordance with para 15 of GS4GG Design Change requirements, version 2.0, related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. The estimated annual average of the emission reductions from project activity has reduced from 904,974 tCO2e to 491,903 tCO2e. Similarly, the emission reductions determined for the fifth monitoring period from 25/02/2024 to 01/10/2024 (inclusive of both days) have reduced from 352,717 tCO2e to 234,205 tCO2e.

The review of the project design documentation and the subsequent follow-up interviews have provided Applus+ Certification with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all relevant GS4GG Design Change requirements, related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting. The project will hence be recommended by Applus+ Certification for approval of design change.

The validation was performed in accordance with the GS4GG Design Change requirements, related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The proposed GS project activity will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change. In our opinion, the project meets all relevant Gold Standard and host country criteria.

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Date: 15/09/2025

Lead Auditor/ Tech. Expert: Ms. Arohi Jain
Local Expert (Somalia): Mr. Abdikani Ibrahim Gas
Tech. Reviewer / Tech. Expert: Dr. N. Premjit Singh

Approver *(Applus+ Certification VVB VVB CDM Product Manager /Sustainability Manager)*
Ms. Carla Debat Mollevi

ASSESSMENT TEAM	
Lead Auditor: Ms. Arohi Jain	**Technical Reviewer: Dr. N. Premjit Singh**
Signature: 	Signature: 
Approver: Ms. Carla Debat Mollevi	
Signature: 	

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Appendix 1. Competence of team members and technical reviewers

1. **Ms. Arohi Jain**, has completed her M. Sc. in Environmental Sciences and B.Sc. in Biology from Chhatrapati Shahuji Maharaj University, formerly Kanpur University in Kanpur, Uttar Pradesh, India. She also holds Post Graduate Diploma degree in Urban Environmental Management and Law from CEL, WWF- India and National Law University, Delhi, India. She is a Certified Lead Auditor for ISO 14001:2015 EMS from CQI and International Registry for Certified Auditors (IRCA). Arohi has more than 5 years of experience in the sector of air quality, environmental impact assessment studies and climate change. Her professional career has been mainly focused, but not limited to, on the sector of validation and verification of GHG emission compensation and mitigation projects, in different countries and under universally recognized standards namely, VCS, SD VISta, GS4GG, GCC as Lead Auditor, Validator, Verifier and Technical Expert for SS/TA 3.1. Currently, she works in the CDM Department of Applus + Certification, as Lead Auditor– VVC Team, being involved in Validations and Verifications of PAs and PoAs as Lead Auditor and Technical Expert in the DOE. She has been involved in more than 50 projects for Renewable and non-Renewable (SS/TA 1.2) as well as Energy Demand (SS/TA 3.1) projects. Ms. Arohi Jain is based in Gurugram, India.Ms. Arohi Jain participates as part of the Audit Team as the Lead Auditor and Technical Expert.

2. **Mr. Abdikani Ibrahim Gas** is an experienced agronomist and development practitioner with strong expertise in climate-smart agriculture, sustainable crop production, and agricultural extension. His core qualifications include agronomic research methods, seed science, soil fertility and water management, cropping systems, and agro-pastoral research. Alongside his technical background, he possesses in-depth knowledge in development studies, covering disaster management, gender and development, development economics, and microfinance. He is also skilled in project cycle management, including project design, implementation, monitoring, evaluation, and reporting, complemented by experience in knowledge management and communication strategies. He holds an MSc in Agronomy from Hajee Mohammed Danesh Science and Technology University, Bangladesh, and an MA in Development Studies from Gollis University, Somaliland, along with a BSc in Agriculture and Natural Resource Management. Abdikani has further strengthened his expertise through training in project management, seed system security assessment, and sustainable soil management. With a track record of academic and practical engagement in agriculture and rural development, he has worked with various organizations to promote food security, enhance resilience, and improve livelihoods. His multidisciplinary approach, blending agronomy and development studies, positions him as a valuable contributor to agricultural transformation, climate adaptation, and sustainable community development initiatives. Mr. Abdikani Ibrahim Gas is based in Hargeisa, Somalia. Mr. Abdikani Ibrahim Gas participates as a local support in Somalia.

3. **Dr. N Premjit Singh** has a PhD in Mechanical Engineering (Thesis: Design and development of a square parabolic dish system with a concentrated photovoltaic (CPV) module for performance improvement) from the Indian Institute of Technology (IIT) Madras, Chennai, India, awarded in 2021. M.Tech in Energy Technology, Tezpur University, Napaam, India (2007), and B.Tech in Mechanical Engineering (2005), NERIST, Nirjuli, India. He has extensive experience of about 9 years with DOEs, including UNFCCC CDM and other carbon related schemes (e.g., VCS, GS, GCC), and 5 years + in research projects, renewable energy, and energy audits. In Applus+ since March 2023, he has been

the Product Assurance Manager for CDM/VCS/GS4GG/GCC Department to ensure the quality of the performance of different assessments, coordinate the global team for technical reviews, and identify the training needs for the auditors and technical reviewers to improve the quality of reports. He holds experience as a Lead Auditor, Validator and Verifier for GHG mitigation projects and programmes of activities in Sectoral Scope 1.2 (Renewables) and 3.1. (Energy Demand) and is qualified as per Applus+ procedures as Lead Auditor, Validator, Verifier, Technical Expert for SS/TA 1.2. and Technical Reviewer. Dr. N Premjit Singh is based in Gurugram, India. Dr. N Premjit Singh participates as part of the Technical Review Team.

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Appendix 2. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
1.	BURN Mfg. Co.	Registered GS4GG VPA-DD GS PDD for design change (final)	Version 4.0 Dated 13/10/2021 Version 05.1 dated 12/11/2025	CME
2.	BURN Mfg. Co.	Emission reduction calculation sheet (final)	Version 05 dated 18/08/2025	CME
3.	GS4GG	Applied Methodology: TPDDTEC Technologies and Practices to Displace Decentralized Thermal Energy Consumption	Version 3.1	Gold Standard
4.	GS4GG	• GS4GG Principles and Requirements, • GS4GG Programme of Activity Requirements • GS4GG Validation and Verification Standard • GHG Emissions Reduction & Sequestration Product Requirements • Community and Services Activity Requirements	version 2.1 version 3.0 Version 2.0 Version 3.1 Version 1.2	Gold Standard
5.	GS4GG	Design-change-requirements	Version 2.0	Gold Standard
6.	GS4GG	Site Visit and Remote Audit Requirements and Procedures	Version 02.0	Gold Standard
7.	GS4GG	Core Carbon Principles Labelling of Gold Standard Verified Emission Reductions	Version 2.0	Gold Standard
8.	UNFCCC	Tool 33: Methodological tool for default values of common parameters	Version 3.0 dated 12/06/2025	Others
9.	IPCC	2006 IPCC default values	-	Others
10.	BURN Mfg. Co.	Technical specifications of Project ICS	-	CME
11.	LGAI Technological Center S.A.	Remote audit observations	10/09/2025	VVB

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12.	BURN Mfg. Co.	Monitoring Report for MP 5 (25/02/2024 to 01/10/2024) Ex-post ER sheet for MP5	Version 4.0 dated 18/08/2025 Dated 18/08/2025	CME

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Appendix 3. Clarification requests, corrective action requests and forward action requests

Table 1. FAR from previous verification

Type:	☐ CAR ☐ CL/CR ☒ FAR	Number:	NA
Raised by:	NA	Ref. to checklist in GS4GG PDD:	NA
Description of the audit finding		Date:	
NA			
Project Participant's response		Date:	
NA			
Documentation provided as evidence by Project Participant			
NA			
Auditor's assessment comment		Date:	
NA			

Table 2. CLs from this validation

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	01
Raised by:	Validation Team	Ref. to checklist in above tables:	D.4
Description of the audit finding		Date:	29/08/2025
The section B.6.2 of the VPA-DD states that the fNRB value for the host country Somalia is revised from 84.1% which was sourced from third party report to 64% which is sourced from Tool 33, version 3.0. CME is requested to clarify the reason for this amendment.			
Project Participant's response		Date:	01/09/2025
To comply with the ICVCM CCP requirements CME has requested for project design change and updated the CO2 & non-CO2 emission factors for charcoal instead of wood, revised the fNRB value and considered the default value as referred to in the CDM Tool 33 version 3.0 for Somalia.			
Documentation provided as evidence by Project Participant			
PDD v05, dated 18/08/2025			
Auditor's assessment comment		Date:	07/09/2025
The validation team has assessed the justification provided by the CME and found that revision in fNRB value is in accordance with para 6.1.1 of CCP Labelling Requirements version2.0, thus acceptable. Hence, CL 01 is closed.			

Type:	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	Validation Team	Ref. to checklist in above tables:	D.4
Description of the audit finding		Date:	29/08/2025
The section B.7.1 of the VPA-DD, states that the value for the parameter 'LEp,y' has been updated to 0.18 for ex ante estimation.			

Clarification is sought for this amendment and the frequency of monitoring for this parameter.		
Project Participant's response	Date:	01/09/2025
BURN opted not to conduct leakage surveys due to the uncertainty in accurately quantifying the impact of leakage on f_{NRB}. Instead, we have applied for a 5% discount in place of the previously assumed 0% leakage, which has been based on the results of past leakage surveys. This revised approach is more conservative, as it incorporates the uncertainty factors implied by Gold Standard. These factors are designed to capture a wider range of potential leakage impacts—not just those that would have been identified through a leakage survey. the source and monitoring frequency has been updated in the revised VPA DD.		
Documentation provided as evidence by Project Participant		
PDD v05, dated 18/08/2025		
Auditor's assessment comment	Date:	07/09/2025
The validation team has assessed the justification provided by the CME and found that considering a fixed discount of 5% for leakage will also help to account for the uncertainty factors implied by the GS and is therefore a conservative approach which has been accepted by the validation team. Hence, CL 02 is closed.		

Table 2. CARs from this validation

Type:	☐ CAR	☐ CL/CR	☐ FAR	Number:	-
Raised by:	NA			Ref. to checklist in above tables:	-
Description of the audit finding				Date:	DD/MM/YYYY
NA					
Project Participant's response				Date:	DD/MM/YYYY
NA					
Documentation provided as evidence by Project Participant					
NA					
Auditor's assessment comment				Date:	DD/MM/YYYY
NA					

Table 3. FARs from this validation

Type:	☐ CAR	☐ CL/CR	☐ FAR	Number:	-
Raised by:	NA			Ref. to checklist in above tables:	-
Description of the audit finding				Date:	DD/MM/YYYY
NA					
Project Participant's response				Date:	DD/MM/YYYY
NA					
Documentation provided as evidence by Project Participant					
NA					
Auditor's assessment comment				Date:	DD/MM/YYYY
NA					