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TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (PDD)

PUBLICATION DATE **7.10.2020**

VERSION **v. 1.1**

RELATED SUPPORT

- TEMPLATE GUIDE Key Project Information & VPA Design Document v.1.1

This document contains the following Sections

This template has been revised to aid a consistent interpretation and to better support project developers submitting documentation for certification. Please read the accompanying guide to understand how to complete this template accurately.
TEMPLATE GUIDE Key Project Information & VPA Design Document v.1.1

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KEY PROJECT INFORMATION

GS ID of Project	GS11433
Title of Project	GS10789 VPA5: Efficient and Clean Cooking for households in the Democratic Republic of Congo (DRC)
Time of First Submission Date	01/11/2021
Date of Design Certification	N/A
Version number of the VPA-DD	1.1
Completion date of version	16/02/2022
Coordinating/managing entity	BURN Manufacturing Co.
VPA Implementer (s)	BURN Manufacturing Co.
Project Participants and any communities involved	BURN Manufacturing Co.
Host Country (ies)	Democratic Republic of Congo (DRC)
GS ID and Title of applicable Design Certified VPA	N/A
GS ID and Title of applicable Performance Certified VPA	N/A
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A
Scale of the project activity	☐ Micro scale ☐ Small Scale

	☒ Large Scale
Other Requirements applied	N/A
Methodology (ies) applied and version number	Technologies and Practices to Displace Decentralized Thermal Energy Consumption' (TPDDTEC), version 03.1
Product Requirements applied	☒ GHG Emissions Reduction & Sequestration ☐ Renewable Energy Label ☐ N/A
Project Cycle:	☒ Regular ☐ Retroactive

Table 1 – Estimated Sustainable Development Contributions

Sustainable Development Goals Targeted	SDG Impact (defined in B.6)	Estimated Annual Average	Units or Products
13 Climate Action (mandatory)	Emission Reductions	83,305	VERs
1 End poverty in all its forms everywhere	Monetary savings related to the purchase of charcoal	50%	Monetary savings in %
3 Ensure healthy lives and promote well-being for all at all ages	Perceived air quality	80%	Households in % perceiving improved air quality
7 Ensure access to affordable, reliable, sustainable and modern energy for all	Number of sold/distributed ICS in use	14,390	ICS in use
8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Number of jobs created	25	N° of jobs created

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

This VPA deploys highly efficient improved charcoal cookstoves (ICS), known as 'Jikokoas' reducing woody biomass consumption for urban and peri-urban households in the Democratic Republic of Congo (DRC). For a more detailed technical description of the ICS see section A.5. of this document.

The VPA is implemented by BURN Manufacturing Co. (in the following 'BURN'), at the same time Coordinating and Managing Entity (CME) of the PoA, the biggest manufacturer of highly efficient improved cookstoves in Sub-Saharan Africa producing all its stoves in the first and only modern cookstove manufacturing facility in Kenya. BURN collaborates with various local partners on the ground to assist in the different activities of this cookstove project.

The scenario existing prior to the implementation of the project is the use of very inefficient traditional cookstoves, consuming a lot of non-renewable charcoal and firewood. The high biomass consumption has negative impacts on the environment leading to deforestation and land degradation, Greenhouse Gas Emissions (GHG) emissions, loss of soil fertility and soils' reduced ability of water retention. Further, indoor air pollution through health-damaging pollutants while combusting firewood and charcoal result in diseases like e.g. pneumonia, stroke, ischaemic heart diseases, chronic obstructive pulmonary diseases and lung cancer. The project activity will relieve these negative impacts.

The PoA is a voluntary action by the CME.

A.1.1. Eligibility of the project under approved PoA

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No.	Eligibility Criterion	Description/ Required condition	Means of Verification/Supporting evidence for inclusion

1	Geographical Boundary	ICS distributed[1] under any of the VPAs will be located in any of the countries mentioned under Table 1 of the PoA-DD.	ICS are distributed to urban and peri-urban households across 16 Provinces in DRC. For more details see section A.4. of this document.
2	Double-counting of project activities	All VPAs will be checked to prevent double counting and are not registered as a separate GS project activity, nor included as part of another registered GS (or other carbon standard) PoA nor that the project activity has been deregistered.	All carbon standard registries (UNFCCC, GS and VERRA) have been checked and it is confirmed that the VPA has not been registered as a separate GS project activity, nor included as part of another registered GS (or other carbon standard) PoA nor that the project activity has been deregistered. The same has been confirmed by a letter signed by the VPA implementer submitted to GS.
3	Technology	Each VPA will implement improved biomass cook stoves.	The VPA implements highly efficient cookstoves known as 'Jikokoas'. Detailed manufacturer's technology specifications are listed in section A.5 of this document.
4	Conditions to check the start date of the VPA through documentary evidence	The start date of a project activity is the date on which the first ICS has been distributed under the VPA. The start date of retroactive VPAs (with a start date prior to date of first submission of PoA) can be at the earliest 1 year prior to submission of documents for GS preliminary review.	The start date is defined as 23/12/2020, i.e. the day when the first ICS was distributed to a household under this VPA. The start date of the VPA is confirmed by an electronic registration done on KoboCollect which have been submitted to GS. The project start date is after the 1st Round of Local Stakeholder Consultation, hence, the VPA is regular.

[1] 'Distributed' may include the free distribution of ICS, sale to full cost or subsidized cost.

5	Methodology	Each VPA will comply with the applicability criteria of the applied methodology (TPDDTEC, version 03.1)	The VPA complies with all applicability criteria of TPDDTEC as further outlined in section B.2 of this document.
6	Financial Additionality & Ongoing Financial Needs	Projects (VPAs) to be included under the PoA will be in compliance with item 1.1.3 of Annex B – positive list mentioned in the 'Community Services Activity Requirements' or located in LDC, SIDS, LLDC. A VPA will be solely composed of isolated units (efficient cookstoves) where the users of the technology/measure are household/SMEs/institutions and where each unit results in <= 1,800 MWh of thermal energy savings per year. Hence, according to paragraph 4.1.9 of the 'Community Services Activity Requirements', a VPA, regardless of the host country in which the project activity is being implemented, is deemed additional and therefore is not required to prove financial additionality at the time of Design Certification; OR a VPA is located in a LDC, SIDS, LLDC.	The thermal energy savings per year at a unit level (i.e. per ICS) are clearly below 1,800 MWh as outlined in the ER calculation excel spreadsheet (worksheet tab 'Th. Energy savings unit level').
7	Stakeholder inclusivity	Local stakeholder consultation is done at VPA level, as described in section F of the PoA-DD. Local stakeholder consultation report must be provided along with VPA-DD. A single Stakeholder consultation can be conducted for a group of VPAs as long as convincing justification is provided.	A local stakeholder consultation report for a group of VPAs has been submitted to GS. The physical LSC meeting and stakeholder feedback round have been conducted (see LSC report for more details). The Local Stakeholder Consultation would be also valid for any other Voluntary Project Activities (VPAs) implemented in DRC under

			BURN's Gold Standard PoA 'ECOA_BURN multi-country Clean Cooking Programme', provided that they are homogeneous, i.e. deploy the same stove type(s), target the same end-users and consist of the same project boundary as this specific VPA.
8	Conditions related to environmental Impact Analysis	The VPA has to fulfil host country requirements (if any) concerning environmental impact analysis.	No EIA is required by the host country for ICS project activities.[2]
9	CME approval	Each VPA has a project implementer that is either the Coordinating/Managing Entity or another entity that has signed a contractual agreement with the CME. Those agreements include all rights and responsibilities of both parties, e.g. approval procedures by the CME, monitoring requirements, carbon credit rights transfer. This eligibility criterion is not relevant if the CME is the VPA implementer.	This eligibility criterion is not relevant for this VPA since the CME is the same entity as the VPA implementer.
10	Transfer of carbon credit ownership	The transfer of carbon credit ownership all along the investment chain is clearly described and communicated to all project participants and end-users so that they are aware of to give up their rights on emission reductions. For technology producers and the retailers of the improved technology, this must be communicated by contract or clear written assertions in the transaction	The end-users permanentely waive any claim or rights on carbon credits to the VPA implementer (at the same time CME of the PoA). This is confirmed by strap and/or sticker on ICS box and warranty booklet. Supporting documentation related to strap and/or sticker and warranty booklet has been submitted to GS. There is a contractual agreement between

[2] See e.g. PoA10053, section E.1, https://cdm.unfccc.int/ProgrammeOfActivities/poa_db/RSPUDC53EQI206JHO84ZVTXBM7AGF1/view (accessed on 10/10/2021)

		paperwork. The end-users will need to be informed and notified that they cannot claim for emission reductions from the project.	distributors/retailers in which distributors/retailers waive any claim or rights on carbon credits to the VPA implementer (at the same time CME of the PoA). A sample agreement has been submitted to GS.
11	Conditions to provide an affirmation that funding from Annex I Parties, if any, does not result in a diversion of ODA	In case that any of the VPA receives ODA, it is ensured that there is no diversion of ODA, i.e. that no ODA is provided under the condition that all or part of the carbon credits have to be returned to the donor country/entity providing ODA.	The VPA implementer has signed an ODA declaration confirming that there is no diversion of ODA. The same has been submitted to GS.
12	Target Group and distribution mechanism	The VPA serves households, institutions or SMEs either in urban, peri-urban and/or rural areas, and distributes the cook stoves through adequate distribution channels.	This VPA targets households in urban and peri-urban areas across 16 Provinces of DRC. ICS are distributed through direct sale/distribution and/or a variety of retail outlets across 16 Provinces to end-users.
13	Conditions related to sampling requirements for the PoA	The VPA complies with the sampling plan as outlined in the PoA-DD, section B.3 and VPA-DD, section B.7.2	The VPA-DD outlines the sampling plan in section B.7.2 which is in line with the one stipulated in the PoA-DD. The VPA will make part of a single sampling covering a group of VPAs, as soon as there are other homogenous VPAs. In case of a grouped sampling approach, the CDM Project Standard for PoAs will be followed.
14	Double counting of emission reductions	Each VPA will implement a unique identification system for every efficient cooking unit distributed to avoid double counting of emission reductions.	The unique identification system is explained in detail in section A.5. of this document. The VPA is in adherence to the CME Management System as outlined in Section C of the PoA-DD.

15	Crediting Period	The duration of the crediting period of the VPA does not exceed the end date of the registered PoA or shall be capped by the end date of the PoA. The final date for which ERs can be credited shall be no later than 20 years after the start date of the PoA.	The VPA will have a crediting period of 5 years which can be renewed twice, i.e. in total a maximum issuance of 15 years. The VPA will not exceed the end date of the registered PoA.

A.1.2. Legal ownership of products generated by the project and legal rights to alter use of resources required to service the project

The project owner, BURN Manufacturing Co., has full and uncontested legal ownership of the Verified Emission Reductions (VERs) that are generated through the Gold Standard Certification.

BURN's ownership on the carbon credits has been clearly communicated to end-users and distributors.[3]

A.2. Location of project

Host Country: Democratic Republic of Congo

Region/State/Province etc:

Urban and peri-urban areas within the borders of the following 16 Provinces within the Democratic Republic of Congo. 10 out of the total 26 Provinces from DRC are not included in the project boundary.

1. Kinshasa
2. Haut-Katanga
3. Sud-Kivu
4. Tshopo

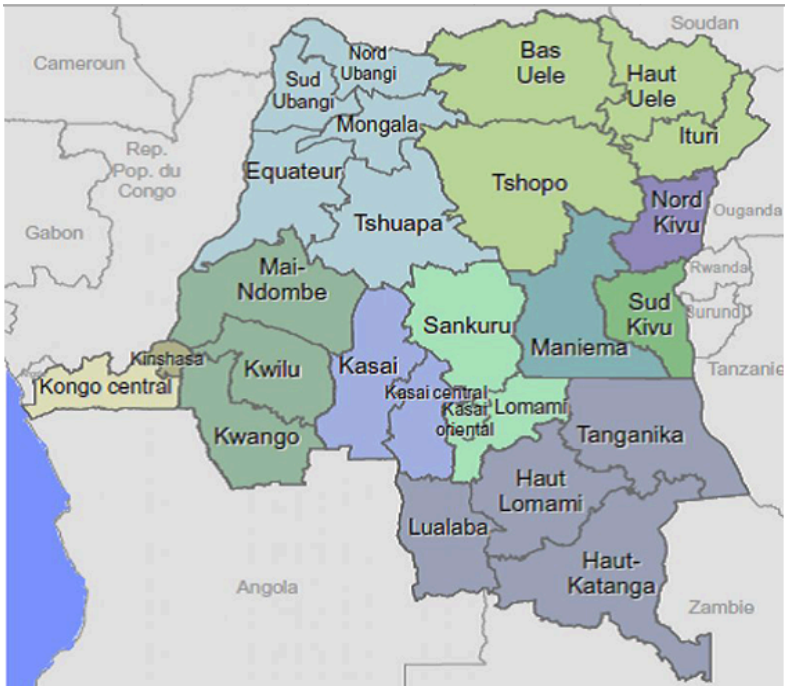
[3] The warranty booklet and a photo of the strip of the box have been uploaded to GS Registry.

5.	Nord-Kivu
6.	Kasai-Central (previous Kasai-Occidental)
7.	Kasai-Oriental
8.	Kasai
9.	Maniema
10.	Ituri
11.	Tanganyika
12.	Lualaba
13.	Kwilu
14.	Kongo Central
15.	Haut-Uele
16.	Lomami

The GPS coordinates[4] from the Democratic Republic of Congo are the following:

Latitude: -4° 02' 0.66" S

Longitude: 21° 45' 0.22" E



[4] https://latitude.to/map/cd/congo-democratic-republic, accessed on 10/10/2021.

A.3. Technologies and/or measures

The VPA deploys an efficient cookstove known as Jikokoa intended for use with charcoal. The technology was designed and developed by BURN. These highly efficient cookstoves translate into considerable charcoal savings when compared to traditional cookstoves. The Jikokoa stove's design takes into account the local cooking culture in the project area to ensure that improvements in technology and improved standards of living do not come at the expense of cultural traditions. The CPA implementer may opt to distribute other stove models in this VPA over time.

The households, by using the improved cookstoves (Jikokoa's), achieve considerable monetary savings through less charcoal consumption (positive contribution to SDG 1). Further, the households benefit of improved air quality. Since the Jikokoa's burn the fuel in a much cleaner way as the traditional stoves do (positive contribution to SDG 3). The project generates several jobs positively contributing to SDG 8.

Stove Manufacturer	BURN	
Stove Model	Jikokoa G3.5	
Stove Type	Charcoal Stove	
Materials		
Stove Body	CRCA Carbon Steel painted high gloss black epoxy powder coat	
Pot Rest	StainlessSteel	
Burning Chamber	StainlessSteel	
Ash Tray	Aluzinc	
Feet	StainlessSteel	
Measurements		
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[5]	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	StainlessSteel & Cast Iron
Burning Chamber	StainlessSteel
Ash Tray	Aluzinc
Feet	Aluzinc

Measurements

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

[5]The lifetime of the Jikokoa G3.5 may go beyond the indicated lifetime. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore or remain in the database for crediting until the moment a significant drop in usage rate is observed. As an alternative, worn out ICS may be replaced by newly distributed stoves. Manufacturer's declaration about the ICS lifetime has been submitted to the validating DOE.

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[6]	7 to 10 years

Stove Manufacturer	BURN
Stove Model	Ecoa Char MMJ[7]
Stove Type	Charcoal Stove

Materials

Stove Body	CRCA Carbon Steel, painted hammertone black epoxy powder coat
Pot Rest	Stainless Steel
Burning Chamber	Stainless Steel
Ash Tray	Aluzinc
Feet	Aluzinc
Handles	Stainless Steel and Polypropylene plastic[8]

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

[6]The lifetime of the project devices may go beyond the indicated lifetime. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore or remain in the database for crediting until the moment a significant drop-in usage rate is observed. As an alternative, worn out ICS may be replaced by newly distributed stoves. Manufacturer's declaration about the ICS lifetime has been submitted to the validating DOE.

[7] The name of the stove model is still subject to change.

[8] Not finally decided. Since stove model is in its final development phase.

Packaging Dimensions	cm	29.5 L x 29.5 W x 24.0 H[9]

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[10]	7 to 10 years

[9] Not finally decided. Since stove model is in its final development phase.

[10]The lifetime of the Ecoa Char MMJ may go beyond the indicated lifetime. Hence, depending on the usage rate of the stoves, stoves will be either removed from the database after the end of its lifetime and not credited anymore or remain in the database for crediting until the moment a significant drop in usage rate is observed. As an alternative, worn out ICS may be replaced by newly distributed stoves. Manufacturer's declaration about the ICS lifetime has been submitted to the validating DOE.

Photos: To the top left: Jikokoa Classic, To the top right: Jikokoa Xtra, To the bottom: ECOA Char MMJ

Each ICS will be identified through an unique serial number (USN). The USN has the following format comprising of 9 digits[11]:

1st digit	2nd digit	3rd	4th	5th	6th	7th	8th	9th
Product ID	100000th	10000th	1000th	100th	10th	Random	Random	1st
ID	S1	S2	S3	S4	S5	R1	R2	S6

Each section on the USN will identify the product as follows:

- Product type: the first digit identifies the stove type (Jikokoa)
- # Production number: S1 to S6 are digit slots for a sequential numbering ordered by time of production, allowing for 1 million unique serial numbers. For instance, the first stove off the line would have "000000" for its S1-S6 digits.
- Random digits: R1 and R2 are 2 random digits placed in slots 7 & 8, to make the USN unpredictable to outside parties

Example for USN: 105097338

- "1" stands for Jikokoa product ID
- "050978" for S1-S6, meaning it was the 50,979th Jikokoa produced
- "33" for R1-R2, the random digits

The data for the system will be updated and modified as required to allow for optimal performance of VPA implementation and monitoring. All data will be stored for at least two (2) years after the expiry of the crediting period.

A.4. Scale of the project

[11] It is possible that the USN format may change in future.

The VPA is a large scale project activity. The applied TPDDTEC methodology allows large scale project activities. No suppressed demand baseline will be applied. The thermal energy savings per year at a unit level (i.e. per ICS) are clearly below 1,800 MWh as outlined in the ER calculation excel spreadsheet.

A.5. Funding sources of project

The VPA is funded by private sources of the CME and possibly through private or public funds. In case that the VPA benefits of Official Development Assistance (ODA), it will be ensured that there is no diversion of ODA. See the signed ODA declaration uploaded to SustainCert Registry.

SECTION B. APPLICATION OF APPROVED GOLD STANDARD METHODOLOGY (IES) AND/OR DEMONSTRATION OF SDG CONTRIBUTIONS

B.1. Reference of approved methodology (ies)

Technologies and Practices to Displace Decentralized Thermal Energy Consumption, version 3.1

B.2. Applicability of methodology (ies)

In the following each of the methodology applicability requirements is listed as well how the project activity (VPA) complies with each of the criteria.

Methodology applicability requirement	Justification regarding this VPA
This methodology is applicable to programmes or activities introducing technologies and/or practices that reduce or displace greenhouse gas (GHG) emissions from the thermal energy consumption of households and non-domestic premises	This VPA introduces highly efficient improved charcoal cookstoves (ICS) reducing woody biomass consumption for urban and peri-urban households, hence reducing GHG emissions from the thermal energy consumption.
The project activity is implemented by a project proponent and can include additional project participants. The individual households and institutions do not act as project participants.	This VPA is implemented by BURN Manufacturing Co, at the same time being the CME of the PoA. The individual households do not act as project participants.
The project boundary needs to be clearly identified, and the technologies counted in the project are not included in any other voluntary market or CDM project activity (i.e. no double counting takes place). In some cases there maybe another similar activity within the same target area.	The geographical project boundary of this VPA is defined as 16 Provinces within DRC as described in section A.4 of this document. All carbon standard registries (UNFCCC, GS and VERRA) have been checked and it is confirmed that the VPA has not been registered as a separate GS project activity, nor included as part of another registered GS (or other carbon standard) PoA nor that the project activity has been deregistered.

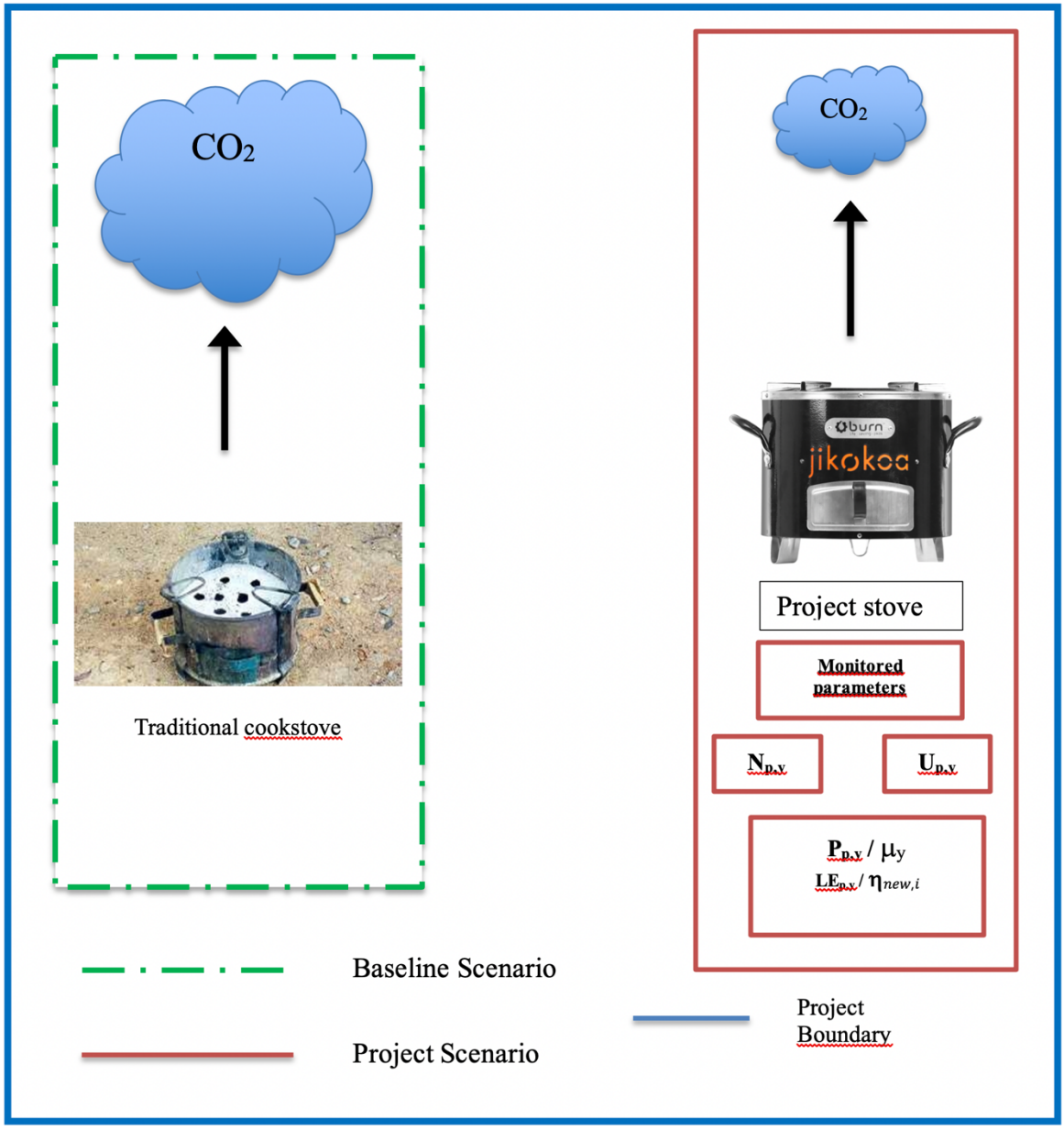
	Hence, it can be confirmed that double counting is being avoided.
Project proponents must therefore have a survey mechanism in place together with appropriate mitigation measures so as to prevent any possibility of double counting.	The ICS under this VPA will avoid double accounting of emissions reductions through the Unique Serial Number (USN). Each device under this VPA is unquestionably assigned to the PoA 'ECOA_BURN multi-country Clean Cooking Programme'. The USN will be clearly visible on the ICS throughout the life of the product as well as stored in the electronic data management system. If there is any doubt regarding the USN of a product it will be excluded from the VPA.
The technologies each have continuous useful energy outputs of less than 150kW per unit (defined as the total useful energy delivered from start to end of operation of a unit divided by time of operation). For technologies or practices that do not deliver thermal energy in the project scenario but only displace thermal energy supplied in the baseline scenario, the 150kW threshold applies to the displaced baseline technology.	The ICS promoted by this VPA have a capacity of less than the maximum 150kW per unit. The power output is between 1.9 to 2.4 kW (depending on the model).
Using the baseline technology as a backup or auxiliary technology in parallel with the improved technology introduced by the project activity is permitted as long as a mechanism is put into place to encourage the removal of the old technology (e.g. discounted price for the improved technology) and the definitive discontinuity of its use. The project documentation must provide a clear description of the approach chosen and the monitoring plan must allow for a good understanding of the extent to which the baseline technology is still in use	Customers will be encouraged to discontinue and remove the baseline technology. Nevertheless, some of the households may continue using the baseline stoves. The monitoring will provide information to what extent households continue using the baseline technologies after the introduction of the ICS: • Annual monitoring surveys will track the continued use of baseline technologies • The parameter, $P_{p,y}$, is based on subsumed Project Fuel Tests and thus use of traditional stove/fuel is

after the introduction of the improved technology.	accounted for in project emissions calculations.
The project proponent must clearly communicate to all project participants the entity that is claiming ownership rights of and selling the emission reductions resulting from the project activity.	The project proponent will clearly communicate to all project participants that BURN Manufacturing Co. is claiming ownership rights and selling the ER credits resulting from the distribution of project technologies. • Transfer of carbon rights will be explained at local stakeholder consultations • Written messages on the stove packaging (strip and/or sticker on the box) and warranty booklet explaining that the rights on carbon credits are transferred from the end-users to BURN Manufacturing Co.
Project activities making use of a new biomass feedstock in the project situation (e.g. shift from non-renewable to green charcoal, plant oil or renewable biomass briquettes) must comply with relevant Gold Standard specific requirements for biomass related project activities, as defined in the latest version of the Gold Standard rules. If the biomass feedstock is sourced from a dedicated plantation, the criteria must apply to both plantations established for the project activity and existing plantations that were established in the context of other activities but will supply biomass feedstock.	This VPA does not involve use of a new biomass feedstock, hence this criterion is not applicable. End users continue to use non-renewable biomass in the project scenario.
Adequate evidence is supplied to demonstrate that indoor air pollution (IAP) conditions are not worsened compared to the baseline, and greenhouse gases (as listed in section II.1) emitted by the project fuel/stove combination are estimated with	This criterion is not applicable. Since this criterion is only relevant in case of introduction of a new biomass feedstock. Nevertheless, qualitative surveys are conducted as part of the monitoring surveys to investigate air quality with the project

adequate precision. The project fuel/stove combination may include instances in which the project stove is a baseline stove.	stove. The indoor air pollution is compared to the baseline scenario, asking end-users whether IAP increased, decreased or remained the same since the introduction of the ICS compared to the baseline stove.
Records of renewable fuel sales may not be used as sole parameters for emission reduction calculation, but may be used as data informing the equations in section II of this methodology. These records need to be correlated to data on distribution and results of field tests and surveys confirming (a) actual use of the renewable fuel and usage patterns (such as average fraction of non-renewable fuels used in mixed combustion or seasonal variation of fuel types), (b) GHG emissions, (c) evidence/justifications of CO levels not deteriorating (d) any further factors effecting emission reductions significantly.	This criterion is not applicable. Since this criterion is only relevant in case of introduction of a new biomass feedstock.

B.3. Project boundary

The project boundary is the physical/geographical site of the project technologies. Thus, the project boundary includes all individual households, which receive an ICS. The target area consists of households residing in urban and peri-urban areas across 16 Provinces within DRC. The fuel production and collection area is considered to be the same as the project boundary.



Source		GHGs	Included?	Justification/Explanation
Baseline scenario	Heat delivery	CO_2	**Yes**	Main source of emission in the baseline
		CH_4	**Yes**	Important source of emissions
		N_2O	**Yes**	Significant for charcoal, hence included
	Production of fuel	CO_2	**Yes**	Important source of emissions
		CH_4	**Yes**	Important source of emissions
		N_2O	**Yes**	Significant for charcoal, hence included
	Transport of fuel	CO_2	**No**	Not included for simplification and conservativeness
		CH_4	**No**	Not included for simplification and conservativeness

		N_2O	**No**	Not included for simplification and conservativeness
Project scenario	Heat delivery	CO_2	**Yes**	Main source of emission in the project activity
		CH_4	**Yes**	Important source of emissions
		N_2O	**Yes**	Significant for charcoal, hence included
	Production of fuel	CO_2	**Yes**	Important source of emissions
		CH_4	**Yes**	Important source of emissions
		N_2O	**Yes**	Significant for charcoal, hence included
	Transport of fuel	CO_2	**No**	Not included since no increase of fuel transport compared to the baseline
		CH_4	**No**	Not included since no increase of fuel transport compared to the baseline
		N_2O	**No**	Not included since no increase of fuel transport compared to the baseline

B.4. Establishment and description of baseline scenario

As per the applied methodology TPDDTEC, the baseline scenario is defined by the typical baseline fuel consumption patterns in a population that is targeted for adoption of the project technology.

A baseline survey along with a KPT to determine the baseline woody biomass consumption and the efficiency of the woody biomass baseline devices was conducted between September 11th, 2020 and October 31st, 2020 in 201 urban/peri-urban households across the 16 Provinces within the Democratic Republic of Congo included in the project boundary. In each of the Provinces the biggest City has been identified and the sample size in each of those Cities was calculated based on the urban population size in each of the Provinces. This means, that the sample size in each of the Cities was directly proportional to the population size in the Province, resulting in a higher sample in a City, if the corresponding Province is highly populated and resulting in a lower sample size in a City if the corresponding Province is lower populated. The determined

sample size in a City has been assigned to the different 'Communes'[12] of that City proportionally to the population size in the respective Communes[13]. In case that no population data for Communes were available, the number of samples to be taken for the respective City has been evenly distributed over the Communes.

The Cities have been chosen to be representative of all urban/peri-urban areas in the 16 Provinces.

Three staff members of Alltech, BURN's main distributor in DRC, have been trained by the carbon consultant mkaarbon safari. These staff members again trained a local team of 41 surveyors, well aware about the local culture, language and with previous survey experience. The training was adequately tailored to the baseline surveys/KPTs and included an interactive discussion of questions with surveyors, going through the questions of the baseline survey questionnaire (data collection form) and KPT protocol, role plays as well as interview techniques. Surveyors were instructed not to survey households which are less than 1,000 m distance from each other to ensure a certain geographic representativeness.

The KPT protocol published at Clean Cooking Alliance website[14] and the survey questionnaire outlined in Appendix 2/'Survey format A: Baseline fuel consumption pattern' of the most recent methodology AMS-II.G were followed. The households were visited on 4 consecutive days, avoiding weekends or any holiday. Brand-new weighing scales with a precision of 10g were used, hence no calibration was necessary.

The average charcoal, firewood, LPG, kerosene and electricity consumption was measured over 3 days. However, only the charcoal consumption is taken into account when calculating the baseline fuel consumption. Firewood use revealed not to be significant, hence has not been included which is conservative. LPG, kerosene and electricity are not woody biomass fuels, hence have not been included.

Prior to conducting KPT measurements, the householder was asked a few questions in regard to household size, cooking patterns and fuels and cooking devices used. None

[12] Administrative unit in Cities in DRC.

[13] For some of the Cities some of the Communes were slightly oversampled whereas some others slightly under-sampled if compared to the initial sample size allocation. This however it not considered to be critical by the CME/CPA implementer. Since the initially calculated sample size of 201 households was maintained and all households were randomly chosen.

[14] https://www.cleancookingalliance.org/technology-and-fuels/testing/protocols.html, accessed on 12/11/2020.

of the 201 households stated a difference in fuel consumption and cooking patterns between dry and rainy season, hence seasonal variation was not relevant. The surveyors verified the response given by the householder related to the cooking devices by an on-site kitchen observation. All surveys and KPTs were carried out in person visiting the households.

The baseline surveys/KPTs resulted in an average charcoal consumption of 3.2233 kg/day/household (equivalent to 1.1765 t/year/household[15]) and an average baseline stove efficiency of 13.01%. As mentioned before, since the use of fuelwood was rather insignificant, it was conservatively excluded. An outlier analysis was carried out taking into account the household size and the standard adult equivalence factors as mentioned in the KPT protocol.[16]

The sample size was sufficient to achieve a precision level of 6.93% at 90% confidence. Hence, the 90/10 confidence/precision level for small-scale project activities as mentioned in paragraph 10 of the Standard 'Sampling and surveys for CDM project activities and PoAs' was met.

The detailed household responses and the baseline survey/KPT analysis are provided in the baseline survey and KPT excel spreadsheet.

B.5. Demonstration of additionality

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Specify the methodology, activity requirement or product requirement that establishes deemed additionality for the proposed project (including the version number and the specific paragraph, if applicable).	Community Services Activity Requirements (Version 1.2), paragraph 4.1.9: "Projects that meet any of the following criteria are considered as deemed additional and therefore are not required

[15] This has been calculated as per the following: 3.22 kg/day/household*365/1000

[16] https://www.cleancookingalliance.org/binary-data/DOCUMENT/file/000/000/83-1.pdf, accessed on 12/11/2020.

	to prove Financial Additionality at the time of Design Certification: (a) Positive list (Annex B) (b) Projects located in LDC, SIDS, LLDC[4] (c) Micro-scale projects"
Describe how the proposed project meets the criteria for deemed additionality.	The project is located in DRC, being an LDC. Hence paragraph 4.1.9, (b) as per the Community Services Activity Requirements is met.

The project activity is eligible to apply the "Community Services Activity Requirements" since it meets the criteria as outlined in sections "Eligible Project Types" and "General Eligibility Criteria" of those "Community Services Activity Requirements".

Eligible Project Types	**Project Compliance with the criterion**
All CSA Projects shall lead to climate change mitigation and/or adaptation by providing or improving access to services/resources at the household or community or institution level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc.	The proposed project activity leads to climate change mitigation by providing access to improved cookstoves at the household level.
In relation to the above, all Projects shall, therefore, conform to the Principles & Requirements (and associated documents).	The project activity is in conformance with all GS Principles & Requirements.
General Eligibility Criteria	**Project Compliance with the criterion**
Types of project – Pre-identified CSA project types are noted below. Project Developers may submit new project	The CPA is an end-use energy efficiency project mentioned as eligible project type under section 3.1.1 of the

types to Gold Standard for approval following the Principles & Requirements. **(a) Renewable energy:** Renewable energy types such as solar (photovoltaic and solar thermal electricity generation), tidal/wave, wind, hydropower, geothermal, waste to energy and renewable biomass that are connected to mini grid[3] or off grid solutions for targeted users and/or applications. • Renewable projects supplying electricity to a national or a regional grid shall refer to Gold Standard Renewable Energy Activity Requirements. • Additional eligibility criteria for specific projects (e.g. Hydropower, biomass resources, etc.), are prescribed in Annex A of this document. **(b) End-use energy efficiency:** Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of services or products, where the end-user of the products and services are clearly identified and when the physical intervention is required at the user end. For example, efficient cooking, heating, lighting, etc. **(c) Waste management and handling:** All waste management activities that deliver energy or a usable product with sustainable development benefits such as composting, biogas etc.	Community Services Activity Requirements. The CPA is composed of isolated distributed energy efficiency units (energy efficient cookstoves) where the users of the technology/measure are households and where each unit is smaller than or equal to 1,800 MWh/stove/year of thermal energy savings.

(d) Water, sanitation and hygiene (WASH): WASH activities contributing to climate change mitigation and/or adaptation benefits.	
Project area, boundary and scale: Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements. The definition of scale is the same for all Projects, except Microscale which is defined as: (a) CSA Project issuing emission reductions less than or equal to 10,000 tCO_{2eq} per annum (b) CSA Project seeking any Gold Standard Certified Impact or Product other than emission reductions and meeting one of the following criteria: • Installed capacity less than equal to 2 MWel /6 MW_{th} that employs renewable energy as the primary technology • Energy savings at a scale of no more than 20 GWh per year where energy efficiency is the primary activity • Achieve GHG emissions reductions at a scale of no more than 20,000 tCO_{2eq} per annum where project activity type is not included in the above two criteria. (c) For the purpose of applying UNFCCC methodologies for quantification of GHG reductions, 'small scale' is defined as in CDM Modalities and Procedures for three	The project boundary is defined in section B.3. of this VPA-DD. The VPA is considered as a large-scale project, which is allowed as per the applied methodology TPDDTEC.

projects types; Renewable Energy, Energy Efficiency and Others. Please refer to the GHG Emission Reductions and Sequestration Product Requirements for more information on the definition of 'small scale'.	
Certain Impact Quantification methodologies allow projects to account Suppressed Demand scenario when establishing a baseline. In such cases, the application of Suppressed Demand baseline is limited to Small Scale and Microscale Projects. Where a Suppressed Demand baseline is applied, it is not possible to 'stack' Gold Standard Certified Impact Statements or Products as the definition of the baseline may be contradictory.	The applied methodology TPDDTEC does not take into account a suppressed demand scenario for improved cookstoves.
Legal ownership: (a) Projects involving the distribution of a large number of devices for services such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter, etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with the FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided.	a) The project activity involves the distribution of large number of devices (improved cookstoves). End-users are aware of and willing to give up their rights on carbon credits. The transfer of carbon credit rights from end-users to the CME is mentioned by a strap and/or sticker on ICS box and warranty booklet, both handed over when purchasing the improved cookstove. b) The transfer of carbon credit ownership has been discussed

(b) The transfer of Product ownership shall be discussed during local stakeholder consultations for projects.	during the local stakeholder consultation.

B.5.1. Prior Consideration

The time of first submission has been within one year of the project start date. This can be double checked on the Sustain-Cert registry.

B.5.2. Ongoing Financial Need

Not applicable

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

Sustainable Development Goals Targeted	Most relevant SDG Target	SDG Impact Indicator (Proposed or SDG Indicator)
13 Climate Action (mandatory)	Target 13.3	Emission Reductions
1 End poverty in all its forms everywhere	Target 1.4	Monetary savings related to the purchase of charcoal
3 Ensure healthy lives and promote well-being for all at all ages	Target 3.9	Perceived air quality
7 Ensure access to affordable, reliable, sustainable and modern energy for all	Target 7.1 and 7.B	Number of sold/distributed ICS in use
8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Target 8.5	Number of jobs created

B.6.1. Explanation of methodological choices/approaches for estimating the SDG Impact

The outcome of the SDG 13 will be measured as reduced CO_2e emissions applying the GS methodology TPDDTEC. The SDG 13 outcome will be certified as "Certified SDG 13 Impacts" allowing the generation of carbon credits (GS VERs).
This VPA distributes highly efficient charcoal stoves which reduce charcoal consumption. The baseline fuel and the project fuel are the same and the baseline emission factor and project emission factor are considered the same. The overall GHG reductions achieved by the project activity in year y are calculated as follows:

$$ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * EF_{fuel,CO2} + EF_{fuel,nonCO2})) - \sum LE_{p,y} \quad (1)$$

Where:

$\sum_{b,p}$	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 (drop this term from the equation when using a fossil fuel baseline scenario)
$NCV_{b,fuel}$	Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.015 TJ/ton)
$EF_{b,fuel,CO2}$	CO_2 emission factor of the fuel that is substituted or reduced. 112 tCO_2/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel
$EF_{b,fuel,nonCO2}$	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)

The other SDGs impacts of this CPA (SDG 1, SDG 3, SDG 7 and SDG 8) will not be certified as "Certified SDG Impacts" and, therefore, for these impacts no specific methodologies for monitoring and estimation will be used.

Methodological choices/approaches related to SDG 1
The contribution of the project to SDG 1 will be confirmed by a random sample survey with a representative number of households in which the money spent for charcoal for preparing meals in the project scenario will be compared to the baseline scenario. It will be checked on whether households achieve indeed monetary savings using the improved charcoal cookstove, which would provide evidence that the project positively contributes to SDG 1.

Methodological choices/approaches related to SDG 3
The contribution of the project to SDG 3 will be confirmed by a random sample survey with a representative number of households in which pollution-related inconveniences (such as smoke levels, itchy eyes and breathing problems) in the project scenario will be compared to the baseline scenario. In case that households confirm that due to the project there is less pollution-related inconveniences compared to the baseline scenario, it provides evidence that the project positively contributes to SDG 3.

Methodological choices/approaches related to SDG 7
The contribution of the project to SDG 7 will be confirmed by the number of distributed improved charcoal stoves which are in use.
This is reflected by the the following: $N_{p,y} * U_{p,y}$

Methodological choices/approaches related to SDG 8
The contribution of the project to SDG 8 will be confirmed by the number of jobs created.

B.6.2. Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{b,CO2}$
Unit	tCO_2/TJ
Description	CO2 emission factor arising from use of fuel wood in baseline scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.5)
Value(s) applied	112
Choice of data or Measurement methods and procedures	Default IPCC value for fuel wood is applied.
Purpose of data	CO2 Emission calculation in baseline
Additional comment	If EF is in units of tCO_2/t_fuel, remove NCV term from emission calculations. Term can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	$EF_{b,non-CO2}$
Unit	tCO_2e/TJ
Description	Non-CO2 emission factor arising from use of fuel wood in baseline scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.5) Rule update (03/06/2021): Applicability of GWP for GS for the Global Goals Projects
Value(s) applied	8.4 tCO_2e/TJ for methane and 1.06 tCO_2e/TJ for N_2O CH_4 = 0.3 tCH_4/TJ * 28 (GWP) N_2O = 0.004 tN_2O/TJ * 265 (GWP)
Choice of data or Measurement methods and procedures	Table 2.5, volume 2, chapter 2, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Purpose of data	Non-CO2 Emission calculation in baseline
Additional comment	If EF is in units of tCO_2/t_fuel, remove NCV term from emission calculations. Term can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	$EF_{p,CO2}$
Unit	tCO_2/TJ
Description	CO_2 emission factor arising from use of fuel wood in project scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.5)
Value(s) applied	112
Choice of data or Measurement methods and procedures	Default IPCC value for fuel wood is applied.

Purpose of data	CO_2 emission calculation in project scenario
Additional comment	If EF is in units of tCO_2/t_fuel, remove NCV term from emission calculations. Term can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	$EF_{p,non\text{-}CO2}$
Unit	tCO_2e/TJ
Description	Non-CO2 emission factor arising from use of fuel wood in project scenario
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.5) Rule update (03/06/2021): Applicability of GWP for GS for the Global Goals Projects
Value(s) applied	8.4 tCO_2e/TJ for methane and 1.06 tCO_2e/TJ for N_2O CH_4 = 0.3 tCH_4/TJ * 28 (GWP) N_2O = 0.004 tN_2O/TJ * 265 (GWP)
Choice of data or Measurement methods and procedures	Table 2.5, volume 2, chapter 2, 2006 IPCC Guidelines for National Greenhouse Gas Inventories
Purpose of data	Non-CO_2 emission calculation in project scenario
Additional comment	If EF is in units of tCO_2/t fuel, remove NCV term from emission calculations. Term can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	NCV_b
Unit	TJ/ton of fuel wood
Description	Net calorific value of the fuel wood used in baseline
Source of data	IPCC default 2006, volume 2, chapter 1 (Table 1.2)
Value(s) applied	0.0156

Choice of data or Measurement methods and procedures	Default IPCC value for fuel wood is applied.
Purpose of data	CO_2 emission calculation in baseline scenario
Additional comment	-

Data/parameter	NCV_p
Unit	TJ/ton of fuel wood
Description	Net calorific value of the fuel wood used in project scenario
Source of data	IPCC default 2006, volume 2, chapter 1 (Table 1.2)
Value(s) applied	0.0156
Choice of data or Measurement methods and procedures	Default IPCC value for fuel wood is applied.
Purpose of data	CO_2 emission calculation in project scenario
Additional comment	-

Data/parameter	fNRBi,y
Unit	fraction
Description	Non-renewability status of woody biomass fuel in scenario i during year y
Source of data	Themis Environmental and Delta Ecology report
Value(s) applied	0.76

Choice of data or Measurement methods and procedures	f_{NRB} assessment based on CDM fNRB tool, Tool 30, version 03.0[17]
Purpose of data	ER calculation
Additional comment	The fNRB value will remain fixed during the crediting period

Data/parameter	Wood-to-charcoal conversion factor (CF)
Unit	kg firewood / kg charcoal
Description	Conversion factor for transforming fuel wood into charcoal
Source of data	IPCC default value
Value(s) applied	6.67
Choice of data or Measurement methods and procedures	Projet Makala/CIFOR – Bois énergie en RDC : Analyse de la filière des villes de Kinshasa et de Kisangani; December 2011 (pg. 25)[18]
Purpose of data	Used to calculate fuel savings in fuel wood equivalent
Additional comment	Fixed ex-ante at VPA level

Data/parameter	$P_{b,y}$
Unit	t/household/year

[17] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v3.0.pdf (accessed on 10/10/2021)

[18] http://makala.cirad.fr/index.php/projets/media/media_makala/les_produits/publications/rapport_de_projet/bois_energie_en_rdc_analyse_de_la_filiere_des_villes_de_kinshasa_et_de_kisangani (accessed on 10/10/2021)

Description	Quantity of charcoal that is consumed in baseline scenario b during year y
Source of data	Baseline KPT
Value(s) applied	1.1765
Choice of data or Measurement methods and procedures	This value is based on baseline KPT (for more details see section B.4.)
Purpose of data	Used to calculate the fuel savings
Additional comment	The baseline will remain by-default fixed during the crediting period since the project activity targets non-industrial applications (see page 6 of TPDDTEC).

B.6.3. Ex ante estimation of SDG Impact

Ex-ante calculations related to the outcomes of SDG 13:

The transparent ex-ante calculations of the outomes of SDG 13 (i.e. CO2e reductions) are provided in a separate excel spreadsheet uploaded to GS registry.

The methodology directly provides the following equation for emission reductions; without separate baseline, project or leakage emission reduction equations.

$$ER_y = \sum_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCVb,_{fuel} * (f\,NRB,b,y * EF_{fuel,CO2} + EF_{fuel,nonCO2})) - \sum LE_{p,y} \quad (1)$$

Where:

$\sum_{b,p}$	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 (drop this term from the equation when using a fossil fuel baseline scenario)
$NCV_{b,fuel}$	Net calorific value of the fuel that is substituted or reduced (IPCC default for wood fuel, 0.015 TJ/ton)
$EF_{b,fuel,CO2}$	CO_2 emission factor of the fuel that is substituted or reduced. 112 tCO_2/TJ for Wood/Wood Waste, or the IPCC default value of other relevant fuel
$EF_{b,fuel,nonCO2}$	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)

$P_{p,b,y} = (P_{b,y} - P_{p,y})*CF$

$P_{p,b,y}$ = Specific fuel savings in wood equivalent

$P_{b,y}$ = Baseline fuel consumption

$P_{p,y}$ = Project fuel consumption

CF = Wood-to-charcoal conversion factor

For data/parameters available before design certification, values contained in section B.6.3 and for data/parameters not available before design certification and monitored during the crediting period, the estimates contained in section B.7.1 have been used.

Ex-ante calculations related to the outcomes of SDG 1

N/A. For ex-ante purposes, it is estimated that households achieve monetary savings of around 50% in average. The monitoring of SDG 1 is made through a qualitative evaluation of sample households during the usage/monitoring survey. For this aspect no specific calculations are needed.

Ex-ante calculations related to the outcomes of SDG 3

N/A. For ex-ante purposes, it is estimated that at least 80% of households perceive improved air quality. Since monitoring of SDG 3 is made through a qualitative evaluation of sample households during the usage/monitoring survey. For this aspect no specific calculations are needed.

Ex-ante calculations related to the outcomes of SDG 7

The parameter 'project technologies in use' will be calculated as part of the outcome calculation for SDG 13 and is provided in the separate ER calculation excel spreadsheet. The distributed cookstoves ($N_{p,y}$) are multiplied with the usage rate ($U_{p,y}$) to determine the 'project technologies in use'.

Ex-ante calculations related to the outcomes of SDG 8

N/A. For ex-ante purposes, the number of created jobs has been estimated to be 25 and no specific calculation is needed.

Monitoring of SDG 8 is conducted through the employee lists summing up the total number of jobs created.

B.6.4. Summary of ex ante estimates of each SDG outcome

SDG 13

Year	Baseline estimate	Project estimate	Net benefit
Year 1	51.805	25,902	25,902
Year 2	156.021	78,010	78,010
Year 3	208.409	104,204	104,204
Year 4	208.409	104,204	104,204
Year 5	208.409	104,204	104,204
Total	833.051	416,526	416,526

Total number of crediting years	**5**		
Annual average over the crediting period	166,610	83,305	83,305

SDG 1

Less money is spent for purchasing charcoal in the project scenario compared to the baseline scenario. It is estimated that households achieve monetary savings of around 50% in average.

Year	Baseline estimate	Project estimate	Net benefit
Year 1	100%	50%[19]	50%
Year 2	100%	50%	50%
Year 2	100%	50%	50%
Year 4	100%	50%	50%
Year 5	100%	50%	50%
Total	N/A	N/A	N/A
Total number of crediting years	**5**		
Annual average over the crediting period	100%	50%	50%

SDG 3

Less pollution-related inconveniences (such as smoke levels, itchy eyes and breathing problems) in the project scenario compared to the baseline scenario. It is estimated that at least 80% of households perceive improved air quality.

[19] In the project activity, households spend 50% for charcoal instead of 100% in the baseline scenario. This results in charcoal savings of 50% (indicated in the column 'Net benefit').

Year	Baseline estimate	Project estimate	Net benefit
Year 1	100%	20%[20]	80%
Year 2	100%	20%	80%
Year 2	100%	20%	80%
Year 4	100%	20%	80%
Year 5	100%	20%	80%
Total	N/A	N/A	N/A
Total number of crediting years	**5**		
Annual average over the crediting period	100%	20%	80%

SDG 7

It is estimated that 20,000 ICS (yr-stoves) will have been distributed by the end of the first crediting period. An average usage rate of 90% is expected. This would mean an expected 18,000 ICS[21] in use by the end of the 1st crediting period which contribute to SDG 7.

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	4,474	4,474
Year 2	0	13,475	13,475
Year 2	0	18,000	18,000
Year 4	0	18,000	18,000
Year 5	0	18,000	18,000

[20] In the project activity, 20% of households do not perceive an improved air quality, whereas 80% do (indicated in the column 'Net benefit').

[21] 15,000*90% = 13,500

Total	N/A	N/A	N/A
Total number of crediting years		**5**	
Annual average over the crediting period	0	14,390	14,390

SDG 8

It is estimated that the project creates at least 25 jobs over 5 years (1st crediting period).

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0	25	25
Year 2	0	25	25
Year 2	0	25	25
Year 4	0	25	25
Year 5	0	25	25
Total	0	25	25
Total number of crediting years		**5**	
Annual average over the crediting period	0	25	25

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG 13

Data / Parameter	$N_{p,y}$
Unit	Number of project cookstove credited (units)

Description	Cookstoves in the project database for project scenario p through year y
Source of data	Total distribution record
Value(s) applied	For ex-ante estimation, it is assumed that 15,989 full year stoves will be credited in average per year.[22]
Measurement methods and procedures	BURN keeps records of all distributed ICS in an electronic database. As a minimum the following information will be recorded through a cloud-based web platform (like e.g. EcoMobile[23] or KoboCollect[24]) in the database: • Unique serial number (USN) of the ICS • Date of shipment to distributor/retailer • Name of distributor/retailer • Quantity of ICS distributed • Geographic area (state) of distributor/retailer • Model type of the ICS Besides, the distribution database will contain end-user contact details (name, state, mobile number, or national ID number) of at least 10 times the survey and field test sample size (including usage surveys for each age of product), in order to ensure an adequate end-user pool to which random sampling can be applied. In order to claim the ICS warranty, end-users have to register their end-user details through SMS or call.
Monitoring frequency	Continuously
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Estimation of CO2e emission reductions
Additional comment	The total distribution record is divided based on project scenario to create the project database.

[22] This number is a preliminary estimate and the actual number ex-post can be lower or higher.

[23] https://www.echomobile.org

[24] https://www.kobotoolbox.org

	Any multiple use of the same BURN ICS as well as the lag time between sale/shipping and actual usage is conservatively taken into account.

Data / Parameter	$U_{p,y}$
Unit	Percentage
Description	Usage rate in project scenario p during year y
Source of data	Annual monitoring
Value(s) applied	90% (for ex-ante estimation)
Measurement methods and procedures	The usage survey is carried out annually as described in section B.7.2 of this VPA-DD
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Estimation of CO2e emission reductions
Additional comment	A single usage parameter is weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario. The Good Practice level as per the 'GS Requirements and Guidelines: Usage rate Monitoring' is being followed. The VPA may follow the best practice later on during the crediting period provided that a continuous use monitoring can be implemented. A user is defined as a household which uses the project stove for at least 7 meals per week and who indicates the last usage within a week. Those households, for which on-site observations in the kitchen do not indicate clear usage, will be defined as "Non-user". Usage will be confirmed during monitoring/usage surveys. Any continued baseline stove use will be accounted for under the parameter μ_y.

Data / Parameter	$P_{p,y}$
Unit	t/household/year
Description	Quantity of fuel that is consumed in project scenario p during year y
Source of data	Project KPT
Value(s) applied	0.588 (assumption; it is estimated that project fuel consumption is 50% of the baseline fuel consumption; will be updated once the project KPT will have been carried out)
Measurement methods and procedures	Will be determined through project KPT. The procedure as per Annex 4 of the applied methodology TPDDTEC will be followed.
Monitoring frequency	Every 2 years or in case that aging test approach (as per Annex 8 of the applied methodology) is applied, once prior to 1st issuance.
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Used to calculate the fuel savings
Additional comment	A single project fuel consumption parameter is weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario.

Data / Parameter	$LE_{p,y}$
Unit	tCO_2e per year
Description	Leakage in project scenario p during year y
Source of data	Baseline and monitoring surveys
Value(s) applied	0 (for ex-ante estimation)
Measurement methods and procedures	-

Monitoring frequency	Every two years
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Used to calculate leakage emissions
Additional comment	Aggregate leakage can be assessed for multiple project scenarios, if appropriate

Data / Parameter	$\eta_{new,i}$
Unit	Fraction
Description	Efficiency of the ICS of each type i being deployed as part of the project activity
Source of data	Water Boiling Tests (WBT) following the WBT protocol, 4.2.3. (https://www.cleancookingalliance.org/technology-and-fuels/testing/protocols.html)
Value(s) applied	Monitored parameter
Measurement methods and procedures	The procedures as outlined in Annex 8 of TPDDTEC will be followed. The minimum sample size of each age group shall comply with the 90/10 rule.
Monitoring frequency	Annual
QA/QC procedures	-
Purpose of data	To calculate project fuel consumption
Additional comment	Only applicable if the ageing test approach (as described in Annex 8 of TPDDTEC) is chosen instead of the biennial project KPTs to account for changes in the project scenario over time as project technologies age.

Data / Parameter	μ_y
Unit	Fraction
Description	Adjustment to account for any continued use of pre-project devices (baseline stove) in the project scenario during the year y

Source of data	Monitoring/usage surveys
Value(s) applied	Monitored parameter
Measurement methods and procedures	Any of the following approach with justification on how the chosen option fits within project circumstances • Measurement campaigns shall be undertaken using data loggers such as stove utilization monitors (SUMs) which can log the operation of all devices in order to determine the average device utilization intensity • Monitoring surveys to capture cooking habits and stove usage of households in the region, including quantification of use of baseline devices, by formulating questions and/or collecting evidences to determine the frequency of usage of both the project devices and baseline devices • Monitoring surveys to capture the number of meals cooked
Monitoring frequency	Annual
QA/QC procedures	-
Purpose of data	Emission reduction calculation
Additional comment	Only applicable if the ageing test approach (as described in Annex 8 of TPDDTEC) is chosen instead of the biennial project KPTs to account for changes in the project scenario over time as project technologies age. No need to monitor this parameter in case that biennial project KPTs are conducted, since in this case the KPTs capture the total project fuel consumption on all stoves, i.e. also includes the fuels consumed on any baseline stoves.

SDG 1

Data / Parameter	Monetary savings related to the purchase of charcoal
Unit	-
Description	Monetary savings related to the purchase of charcoal

Source of data	Survey
Value(s) applied	50% (for ex-ante estimate)
Measurement methods and procedures	Carrying out surveys (either site visits or telephone surveys) to check on the money spent for purchasing charcoal in the project scenario compared to the baseline scenario
Monitoring frequency	At least once every two years (biennial)
QA/QC procedures	-
Purpose of data	Reporting on SDG 1
Additional comment	This parameter is measured qualitatively, but not quantitatively.

SDG 3

Data / Parameter	Perceived air quality
Unit	-
Description	Smoke levels, itchy eyes and breathing problems
Source of data	Survey
Value(s) applied	80% perceive an improved air quality (ex-ante estimate)
Measurement methods and procedures	Carrying out surveys (either site visits or telephone surveys) to check on the pollution-related inconveniences (such as smoke levels, itchy eyes and breathing problems) in the project scenario compared to the baseline scenario.
Monitoring frequency	At least once every two years (biennial)
QA/QC procedures	-
Purpose of data	Reporting on SDG 3
Additional comment	This parameter is measured qualitatively, but not quantitatively.

SDG 7

Data / Parameter	Number of sold/distributed ICS in use
Unit	Number of units in use
Description	Number of sold/distributed ICS in use
Source of data	Project database
Value(s) applied	For ex-ante estimation, it is assumed that 14,390 full year stoves will be credited in average per year.[25] The usage rate is expected to be 90%.
Measurement methods and procedures	The total number of ICS sold/distributed is summed up in the database
Monitoring frequency	Continuously
QA/QC procedures	-
Purpose of data	Reporting on SDG 7
Additional comment	-

SDG 8

Data / Parameter	Number of jobs created
Unit	Number
Description	Number of jobs created
Source of data	Project records like contracts, payment slips, employee list or others
Value(s) applied	25 jobs expected to be created
Measurement methods and procedures	-

[25] This number is a preliminary estimate and the actual number ex-post can be lower or higher.

Monitoring frequency	Annually
QA/QC procedures	Employee list can be cross-checked with contracts/payment slips or others
Purpose of data	Reporting on SDG 8
Additional comment	-

B.7.2. Sampling plan

Ongoing monitoring

Usage survey: An annual usage survey determines the drop off rates as project technologies age and users switch back to the baseline technology[26]. The usage parameter will be weighted to be representative of the quantity of project technologies of each age being credited in a given project scenario. The minimum total sample size is 100 randomly selected households, with at least 30 samples for project technologies of each age being credited. The majority of interviews will be conducted in person by BURN staff or by hired externals which would be trained before and include expert observation by the interviewer within the kitchen in question, while the remainder may be conducted via telephone by the same interviewers on condition that in-kitchen observational interviews are first concluded and analyzed such that typical circumstances are well understood by the telephone interviewers. The GS cookstove usage rate guidelines[27] will be followed.

Monitoring survey: Along with the usage survey, a monitoring survey is carried out annually to assess end-user characteristics such as technology use, fuel consumption and seasonal variation.

[26] It may be the case that the drop off rate is lower in the second year than in the first year, reflecting possible difficulties in the early adoption of a new technology.

[27] https://globalgoals.goldstandard.org/407g-ee-ics-tpddtec-usage-guidelines/

At least with every 2nd monitoring survey a leakage assessment will be conducted. The leakage assessment evaluates if the project has in any way lead to an increase in emissions outside of the project boundary and if the increase will be directly attributed to the project activity. The leakage assessment is done in the following:

Potential leakage source	**Probability**	**Justification**
The displaced baseline technologies are reused outside the project boundary in place of lower emitting technology or in a manner suggesting more usage than would have occurred in the absence of the project.	Very low	The displaced baseline technology is the most common and easily available cooking method in the project area and most of households usually sale off the old stove as scrap metal or throw it away upon purchase of ICS. It is highly unlikely that displaced baseline technology is reused outside the project boundary.
Non-project users who previously used lower emitting energy sources use the non-renewable biomass or fossil fuels saved under the project activity.	Can be excluded	Project users have to spend money for the charcoal. It can be excluded that the fuel saved by the project would be given for free by the project users and used by non-project users who previously used lower emitting energy sources.
The project significantly impacts the NRB fraction within an area where other CDM or VER project activities account for NRB fraction in their baseline scenario.	Very low	The project is too small that it would significantly have an impact on the NRB fraction. Besides, demand for charcoal in DRC is continuously rising. Since alternative fuels (like LPG or electricity) are out of reach for many people. Hence, the share of NRB remains high and it will not have a leakage impact on other carbon projects in DRC.

The project population compensates for loss of the space heating effect of inefficient technology by adopting some other form of heating or by retaining some use of inefficient technology.	Very low	The climate conditions for most of the areas in DRC do usually not require space or room heating. It is very unlikely that the charcoal ICS would be used for space or room heating. This can be confirmed through annual monitoring surveys.
By virtue of promotion and marketing of a new technology with high efficiency, the project stimulates substitution within households who commonly used a technology with relatively lower emissions, in cases where such a trend is not eligible as an evolving baseline.	Can be excluded	The project's target group is households using charcoal. It is highly unlikely that households using LPG or electricity for cooking would use the project technology. Thus, leakage can be excluded.

The PP will update the project fuel consumption by carrying out biennial *project KPTs* to account for changes in the project scenario over time as project technologies age. Alternatively, the PP will monitor following Annex 8 of TPDDTEC the degradation in the performance of cookstove efficiency following the WBT and accordingly adjust the project fuel consumption level.

In case of choosing the first option, KPTs would follow the 90/30 rule in case of a paired or independent sampling or the 90/10 rule in case of single sample tests. In case that the 90/30 rule (in case of paired or independent sampling) or 90/10 rule (in case of single sample test) is not met, additional random samples will be taken or the upper bound of the 90% confidence interval will be applied. The procedures as outlined in section 7 and Annex 4 of the applied methodology will be followed.

In case PP opts for the *ageing test approach*[28] instead of biennial project KPTs, annual WBTs would be conducted on a representative sample of each age group. The sample size of each age group will be big enough so that the results comply with the 90/10 rule. The WBT shall be carried out along with the project KPTs prior to 1st issuance and then subsequently WBTs shall be carried out annually to monitor the degradation in the efficiency of the ICS. The WBTs should be conducted in the last 3 months of the monitoring period or after the monitoring period, provided it is representative of annual conditions. Choosing the ageing test approach, the PP would have to ensure to a) raise additional questions in the monitoring survey related to the frequency of usage of both the project and baseline devices or capture the number of meals cooked or b) carry out measurement campaigns using data loggers such as stove utilization monitors (SUMs) to take into account for the parallel use of baseline stoves in the project scenario or c) capture the number of meals cooked on both project and baseline devices. The measurement campaign would comprise of at least 100 randomly selected households for at least 90 days, with at least 30 samples for project technologies of each age being credited.
All of the aforementioned surveys/tests (except WBTs) are intended to be carried out with smartphones (by using e.g. Ecomobile or KoboCollect software tool) and as soon as the user is online all the captured data are transferred to a centralised database. The team of BURN and the external carbon consultant carries out from there the further data analysis. If smartphone technology for any reason cannot be used, data will be recorded in paper form.

The sampling frame for the aforementioned ICS surveys comprises of all households making part of the carbon database.
The sampling frame for the KPTs/WBTs consist of all households using the project ICS.

The surveys/tests will be carried out by BURN staff or by hired externals which would be trained before. Quality of the data will be checked by the carbon consultant.

[28] As per Annex 8 of the applied methodology TPDDTEC

The survey for SDGs 1 and 3 follows the same sampling design as the usage survey to determine the usage rate . The households to be surveyed for SDGs 1 and 3 will be the same as the ones surveyed for $U_{p,y}$.

The VPA will make part of a single sampling covering a group of VPAs, as soon as there are other homogenous VPAs, i.e. apply the same ICS model (Jikokoa stove) and fuel (charcoal), and target the same end-users (i.e. households) within the same geographical area, i.e. 16 provinces in DRC. In case of a grouped sampling approach, the CDM Project Standard for PoAs will be followed.

B.7.3. Other elements of monitoring plan

Monitoring of $N_{p,y}$

BURN keeps records of all distributed ICS in an electronic database. As a minimum the following information will be recorded through a cloud-based web platform (like e.g. EcoMobile[29] or KoboCollect[30]) in the database:

- Unique serial number (USN) of the ICS
- Date of shipment to distributor/retailer
- Name of distributor/retailer
- Quantity of ICS distributed
- Geographic area (state) of distributor/retailer
- Model type of the ICS

Besides, the distribution database will contain end-user contact details (name, state, mobile number, or national ID number) of at least 10 times the survey and field test sample size (including usage surveys for each age of product), in order to ensure an adequate end-user pool to which random sampling can be applied. In order to claim the ICS warranty, end-users have to register their end-user details through SMS or call.

[29] https://www.echomobile.org

[30] https://www.kobotoolbox.org

The USN of each ICS entered into the distribution database will be linked to a distribution date (recorded during distribution) or shipment date. Thus, for any monitoring period it is possible to calculate the period of time for which the stoves included in the emissions reduction calculations are deemed operating. If e.g. a stove has been operating for 180 days, then the full-year operating fraction is 0.493 (=180/365 days). A stove will be counted as operational (= start crediting) from the next day following the stove distribution or after a conservatively calculated period of the date of shipment. The sum of the operating fractions of all appliances determines the equivalent full-time appliances for the monitoring period.

The USN has the following format comprising of 9 digits[31]:

1st digit	2nd digit	3rd	4th	5th	6th	7th	8th	9th
Product ID	100000th	10000th	1000th	100th	10th	Random	Random	1st
ID	**S1**	**S2**	**S3**	**S4**	**S5**	**R1**	**R2**	**S6**

Each section on the USN will identify the product as follows:

- Product type: the first digit identifies the stove type (e.g. Kuniokoa)
- # Production number: S1 to S6 are digit slots for a sequential numbering ordered by time of production, allowing for 1 million unique serial numbers. For instance, the first stove off the line would have "000000" for its S1-S6 digits.
- Random digits: R1 and R2 are 2 random digits placed in slots 7 & 8, to make the USN unpredictable to outside parties

Example for USN: 202728110

- "2" stands for Kuniokoa product ID
- "027280" for S1-S6, meaning it was the 27,281st Kuniokoa produced
- "11" for R1-R2, the random digits

[31] It is possible that the USN format may change in future.

The data for the system will be updated and modified as required to allow for optimal performance of each VPA implementation and monitoring. All data will be stored for at least two (2) years after the expiry of the crediting period.

SECTION C. DURATION AND CREDITING PERIOD

C.1. Duration of project

C.1.1. Start date of project

23/12/2020[32]

The above-mentioned date is the date when the distribution of ICS under this VPA started. The definition of the project start date is in compliance with section 3.4.3 of the GS4GG Principles & Requirements.

C.1.2. Expected operational lifetime of project

15 years (3 x 5 years)

C.2. Crediting period of project

C.2.1. Start date of crediting period

24/12/2020

C.2.2. Total length of crediting period

[32] As per GS requirements, a retroactive project start date of a VPA is possible up to a maximum of 1 year prior to submission for preliminary review. Crediting is possible retroactively for a maximum of 2 years prior to Design Certification.

5 years. The crediting period may be renewed twice in line with the Community Services Activity Requirements.

SECTION D. SUMMARY OF SAFEGUARDING PRINCIPLES AND GENDER SENSITIVE ASSESSMENT

D.1. Safeguarding Principles that will be monitored

A completed Safeguarding Principles Assessment is in Appendix 1, ongoing monitoring is summarised below.

Principles	Mitigation Measures added to the Monitoring Plan
Not applicable	Not applicable

D.2. Assessment that project complies with GS4GG Gender Sensitive requirements

Question 1 - Explain how the project reflects the key issues and requirements of Gender Sensitive design and implementation as outlined in the Gender Policy?	The project activity doesn't endorse any form of discrimination based on gender. DRC has ratified ILO Convention 111 (Discrimination (employment and occupation) Convention[33]. All inhabitants of DRC may turn to the UN Human Rights Committee, to the "Special Rapporteurs" for violations of specific human rights or to ECOSOC for women's rights violations.[34] ICS can be purchased and used by any of the women within the project

[33] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102981 (accessed on 10/10/2021)

[34] http://www.claiminghumanrights.org/drcongo.html?&L=0 (accessed on 10/10/2021)

	boundary willing to participate in the program. It will therefore not put at risk women's access to or control to efficient cookstoves. It's not foreseen either any reduction or risk related to any other resource, entitlement or benefit. Women/children (being the ones mostly spending time for cooking and fuel procurement) are able to spend less time on cooking/fuel procurement and cook in a much cleaner kitchen environment with less pollutants and dirt, resulting in health benefits and more time for income generating activities and education. The project will help to improve womens' health conditions as reduced combustion and less harmful gases during combustion will reduce indoor air pollution and thereby increase respiratory health of the women and children. Both women and men were participating in the local stakeholder consultation meeting. A strong focus has been put on women associations and groups when inviting stakeholders to the physical meeting. It is envisaged that women will be at the center of the project developer's marketing, education and distribution chain. It is planned that women in selected communities will demonstrate and educate consumers on the cookstove and its benefits resulting in

	empowerment, knowledge transfer and generation of jobs for women.
Question 2 - Explain how the project aligns with existing country policies, strategies and best practices	The Project is in line with DRC's constitution.[35] DRC has ratified the principle of equality into its respective constitution (Article 14), which does not tolerate any discrimination concerning women. Article 14 mentions the following "the public powers see to the elimination of any form of discrimination concerning women and assure the protection and the promotion of their rights. They take, in all the domains, notably in the civil, political, economic, social and cultural domains, all the measures appropriate to assure the total realization and full participation of women in the development of the Nation. Women have the right to an equitable representation within the national, provincial and local institutions. The State guarantees the implementation of man-woman parity in these said institutions."
Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	Not applicable, since not necessary.

[35] http://extwprlegs1.fao.org/docs/pdf/cng128142.pdf

Question 4 - Is an Expert required to assist with Gender issues at the Stakeholder Consultation?	Not applicable, since not necessary.

SECTION E. SUMMARY OF LOCAL STAKEHOLDER CONSULTATION

The below is a summary of the 2 step GS4GG Consultation for monitoring purposes. Please refer to the separate Stakeholder Consultation Report for a complete report on the initial consultation and stakeholder feedback round.

E.1. Summary of stakeholder mitigation measures

Not applicable

See LSC report for more details in regard to the initial consultation and stakeholder feedback round.

E.2. Final continuous input / grievance mechanism

Method	Include all details of Chosen Method (s) so that they may be understood and, where relevant, used by readers.
Continuous Input / Grievance Expression Process Book (mandatory)	Altech Group Head Office 942, Av. Colonel Mondjiba Kintambo Magasin Commune de Ngaliema Kinshasa, DRC
GS Contact (mandatory)	help@goldstandard.org
Other	Telephone access: BURN Kenya: +254 706 585629 Altech (DRC): +243 822 230 188 Email access: BURN: info@burnmfg.com Altech (DRC): contact@altech-rdc.com

APPENDIX 1 - SAFEGUARDING PRINCIPLES ASSESSMENT

Complete the Assessment below and copy all Mitigation Measures for each Principle into SECTION D above. Please refer to the instructions in the Guide to Completing this Form below.

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially/no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)
Principle 1. Human Rights			
1. The Project Developer and the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights 2. The Project shall not discriminate with regards to participation and inclusion	No	1. The project is implemented on the ground by BURN in collaboration with local distribution partners. The project developer takes care that the project respect internationally proclaimed human rights and is no complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights.	N/A

		DRC has ratified many UN Human Rights Conventions.[36] 2. The project will not discriminate with regards to participation and inclusion as the improved cookstoves (ICS) can be purchased and used by everybody within the project boundary willing to participate in the program.	
Principle 2. Gender Equality			
1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women 2. Projects shall apply the principles of nondiscrimination, equal	No	The Project is in line with DRC's constitution.[37] DRC has ratified the principle of equality into its respective constitution (Article 14), which does not tolerate any discrimination concerning	N/A

[36] http://www.claiminghumanrights.org/drcongo.html?&L=0 (accessed on 10/10/2021)
[37] http://extwprlegs1.fao.org/docs/pdf/cng128142.pdf

treatment, and equal pay for equal work 3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)		women. Article 14 mentions the following "the public powers see to the elimination of any form of discrimination concerning women and assure the protection and the promotion of their rights. They take, in all the domains, notably in the civil, political, economic, social and cultural domains, all the measures appropriate to assure the total realization and full participation of women in the development of the Nation. Women have the right to an equitable representation within the national, provincial and local institutions. The State guarantees the implementation of man-	

		woman parity in these said institutions."	
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	No	The project activity doesn't expose the community to increased health risks and is not adversely affecting the health of workers and the community. Cooking with improved cookstoves is actually safer than any other open flame stove use or traditional stoves. The workers participating in the project activity are not exposed to unsafe or unhealthy work environments as the sale/distribution of efficient cookstoves or the monitoring activities of the project will not include any hazardous chemicals or other hazardous material.	N/A

Principle 4.1 Sites of Cultural and Historical Heritage			
Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture?	No	The project activity doesn't include sites, structures or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture. The Project will introduce efficient cookstoves in urban and peri-urban households in DRC and it does not require alteration, damage or removal of any historical, artistic, traditional, religious or cultural heritage issues.	N/A
>>			
Principle 4.2 Forced Eviction and Displacement			
Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	The project activity will introduce portable improved cookstoves in urban and peri-urban households in DRC and therefore no physical or economic relocation of people is involved. The use of efficient cookstoves is voluntarily.	N/A
>>			
Principle 4.3 Land Tenure and Other Rights			

a. Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? b. For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?	No	The project doesn't require any change to land tenure arrangements and/or other rights. The project does not involve land-use tenure.	N/A
>>			
Principle 4.4 - Indigenous people			
Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No	There are no indigenous people present within the area of influence nor the project is located on territory claimed by indigenous people.	N/A
>>			
Principle 5. Corruption			
1. The Project shall not involve, be complicit in or inadvertently contribute to or	No	The Project doesn't involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt	N/A

reinforce corruption or corrupt Projects		Projects. The project is, in fact, implemented on the ground by BURN. The ethical codes of BURN and other project partners are against corruption.	
Principle 6.1 Labour Rights			
1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions 2. Workers shall be able to establish and join labour organisations 3. Working agreements with all individual workers shall be documented and implemented and include:	No	1. The project is implemented on the ground by the enterprise BURN in collaboration with other project partners. The employees' rights are a cross-cutting issue and respected in all of the projects of BURN and other project partners. DRC has ratified many ILO Conventions, amongst others convention 100 (Equal Remuneration Convention) and convention 98 (Right to Organise and	N/A

a) Working hours (must not exceed 48 hours per week on a regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave.		Collective Bargaining Convention).[38] All employees will work voluntarily for the project, no forced labour is used and all employment is in compliance with national laws and consistence with the principles and standards of the ILO conventions. In fact, DRC has ratified many ILO Conventions, amongst others convention 29 (Forced Labour Convention) and 105 (Abolition of Forced Labour Convention).[39] 2. The workers are able to establish and join labour organizations.	

[38] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102981 (accessed on 10/10/2021)

[39] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102981 (accessed on 10/10/2021)

4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures		3. The working agreements with the individual workers will be documented and implemented and the minimum requirements stated in section 3.6.1. of GS4GG Safeguarding Principles & Requirements (version 1.2) will be respected whenever applicable. 4. All the possible staff hired has a minimum age of 18. DRC has ratified ILO Convention 182 (Worst Forms of Child Labour Convention).[40] 5. All the works will be made by using appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency	

[40] https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102981 (accessed on 10/10/2021)

		preparedness and response measures.	
Principle 6.2 Negative Economic Consequences			
1. Does the project cause negative economic consequences during and after project implementation?	No	The project is based on a commercial model selling improved cookstoves in order to ensure the economic durability of the project. Carbon revenues are amongst others used for sensitizing end-users and awareness raising, fortify the distribution/supply chain and upscale the project. Improved cookstoves can be purchased and used by everybody within the project boundary willing to participate in the program. There are not expected any direct economic impact or potential risks to the local economy.	N/A
>>			
Principle 7.1 Emissions			

Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project will reduce the GHG emissions as it will be monitored and verified in line with the GS4GG.	N/A
>>			
Principle 7.2 Energy Supply			
Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project does not use energy from a local grid or power supply. Biomass use (charcoal) will be significantly reduced by introducing highly efficient charcoal stoves.	N/A
>>			
Principle 8.1 Impact on Natural Water Patterns/Flows			
Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	The project activity will not negatively affect natural or pre-existing pattern of watercourses, ground-water and/or watersheds.	N/A
>>			
Principle 8.2 Erosion and/or Water Body Instability			

a. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? b. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?	No	a. The project will not cause additional erosion and/or water body instability of or disrupt the natural pattern of erosion. b. Not applicable	N/A
>>			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for production of crops or other products?	No	The Project itself does not involve the use of land and soil for production of crops or other products.	N/A
>>			
Principle 9.2 Vulnerability to Natural Disaster			
Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	The Project will not be susceptible to or will lead to increased vulnerability to any extreme climatic conditions.	N/A
>>			

Principle 9.3 Genetic Resources			
Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No	The Project is not negatively impacted by the use of genetically modified organisms or GMOs.	N/A
>>			
Principle 9.4 Release of pollutants			
Could the Project potentially result in the release of pollutants to the environment?	No	The Project does not release any different pollutants to the environment which would not be released in the baseline already. The release of PM and carbon monoxide are significantly reduced by the introduction of efficient cookstoves.	N/A
>>			
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and	No	The Project is not involving the manufacture, trade, release, and/or use of	N/A

non-hazardous chemicals and/or materials?		hazardous chemicals and or materials.	
>>			
Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers?	No	The Project doesn't involve the application of pesticides and/or fertilisers.	N/A
>>			
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests?	No	No harvesting of forests is involved.	N/A
>>			
Principle 9.8 Food			
Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	The Project doesn't modify the quantity or nutritional quality of food available.	N/A
>>			
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry?	No	The Project doesn't involve animal husbandry.	N/A

>>			
Principle 9.10 High Conservation Value Areas and Critical Habitats			
Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified? >>	No	The project is not located in an area within a high conservation value area or within critical natural habitats. Furthermore, the aim of the project is to reduce biomass consumed in the project area for cooking which may save the natural resources.	N/A
Principle 9.11 Endangered Species			
a. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? b. Does the Project potentially impact other areas where endangered species may be present through transboundary affects? >>	No	a. The project boundary is the physical, geographical sites of the distributed cookstoves. There are no endagered species identified as potentially being present the project boundary. b. The distributed cookstoves are not expected to potentially impact other areas where endangered species may be present through transboundary affects.	N/A

APPENDIX 2- CONTACT INFORMATION OF VPA IMPLEMENTER

Organization name	BURN Manufacturing Co.
Registration number with relevant authority	Business ID: 603-137-240
Street/P.O. Box	Suite 220, 18850 103rd Avenue
Building	
City	Vashon
State/Region	Washington
Postcode	98070
Country	United States
Telephone	+254 718 125 639
E-mail	peter.scott@burnmfg.com
Website	https://burnstoves.com
Contact person	Peter Scott
Title	
Salutation	Mr.
Last name	Scott
Middle name	
First name	Peter
Department	CEO
Mobile	
Direct tel.	
Personal e-mail	

APPENDIX 3-SUMMARY OF APPROVED DESIGN CHANGES

Please refer to Design Changes Requirements for more information on procedures governing Design Changes

Not applicable

Revision History

Version	Date	Remarks
1.1	7 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Gender sensitive requirements added Prior consideration (1 yr rule) and Ongoing Financial Need added Safeguard Principles Assessment as annex and a new section to include applicable safeguards for clarity Improved Clarity on SDG contribution/SDG Impact term used throughout Clarity on Stakeholder Consultation information required Provision of an accompanying Guide to help the user understand detailed rules and requirements
1.0	10 July 2017	Initial adoption