Gold Standard
for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & VPA DESIGN DOCUMENT (VPA DD)

PUBLICATION DATE **14.04.2023**

VERSION **v. 2.1**

RELATED SUPPORT

- Programme of Activity requirements

- TEMPLATE GUIDE VPA Design Document v.2.1

This document contains the following Sections

KEY PROJECT INFORMATION

Type of VPA	☐ Real case VPA ☒ Regular VPA
Scale of VPA Note that a VPA can be of one scale. Please select applicable scale accordingly.	☐Microscale ☐Small scale ☒Large scale
Title of corresponding real case VPA (if applicable)	GS10789 VPA81: Efficient and Clean Cooking for households in Senegal
GS ID of real case VPA (if applicable)	GS 11673
GS ID of VPA	11671
Title of VPA	GS10789 GS11671 VPA61: Efficient and Clean Cooking for households in Nigeria
Time of First Submission Date	19/08/2022
Date of Design Certification	12/12/2023
Version number of the VPA-DD	4
Completion date of version	21/02/2024
Coordinating/managing entity	BURN Manufacturing Co.
VPA Implementer (s)	BURN Manufacturing Co.
Project Participants and any communities involved	BURN Manufacturing Co.
Host Country (ies)	Federal Republic of Nigeria
GS ID and Title of applicable Design Certified VPA	NA
GS ID and Title of applicable Performance Certified VPA	
Activity Requirements applied	☒ Community Services Activities ☐ Renewable Energy Activities ☐ Land Use and Forestry Activities/Risks & Capacities ☐ N/A

Other Requirements applied	NA
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
VPA 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	1,974,258	VERs/annum
1 (No poverty) End poverty in all its forms everywhere	Monetary savings related to the purchase of charcoal	51%	Monetary savings in %
3 (Good Health and Wellbeing) Ensure healthy lives and promote well-being for all at all ages	Perceived air quality	94.30%	Households in % perceiving improved air quality
4. (Quality Education) Ensure equal access for all women and men to affordable and quality technical, vocational, and tertiary education, including university	Number of people receiving skill development training	93	Number of people who participated in project training
5. (Gender Equality) Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared	Average time saving associated with cooking in the project scenario	79	Average time saved cooking for women in the project scenario (measured in minutes

responsibility within the household			reported by end-user)
7. Affordable and Clean Energy Target 7.1; Indicator 7.B Proportion of population with primary reliance on clean fuels and technology	Number of ICS sold/distributed in use	220,070	ICS in use
8. (Decent Work and Economic Growth) Target 8.5; Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Total Number of jobs created	304	Number of jobs created
15. (Life on land) Promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase	Total non-renewable biomass saved	1,034,617.5	Tons of non-renewable biomass saved in the project scenario from continued use of project technologies

SECTION A. DESCRIPTION OF PROJECT

A.1. Purpose and general description of project

>>

A.1.1. Eligibility of the VPA under approved PoA

>> This VPA deploys highly efficient improved cookstoves (ICS), known as 'Jikokoas' reducing woody biomass consumption for urban and peri-urban households in the Federal Republic of Nigeria. For a more detailed technical description of the ICS see section A.3. 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 may collaborate 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 or 3- stone fires, 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, ischemic heart diseases, chronic obstructive pulmonary diseases and lung cancer.

The VPA is a voluntary action by the CME.

Table 2 Eligibility for VPA inclusion as per PoA requirements

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION AND 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 all over the territory of the Federal Republic of Nigeria. For more details see section A.2. 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 can be confirmed by a letter signed by the VPA implementer and 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.3 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 is 19/08/2021, i.e. the day when the first ICS has been distributed to a household under this VPA.

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

		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 of the VPA can be confirmed by an electronic registration done on KoboCollect which shall be submitted to GS. The VPA is a retroactive VPA with start date before date of first submission of VPA.
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/institution ns and where each unit results in <= 600 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	The thermal energy savings per year at a unit level (i.e. per ICS) are clearly below 600 MWh as outlined in the ER calculation excel spreadsheet (worksheet 'Th. Energy savings unit level').

		therefore is not required to prove financial additionality at the time of Design Certification; OR a VPA is located in an LDC, SIDS, LLDC.	
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 has been conducted for a group of VPAs. A local stakeholder consultation report for a group of VPAs has been submitted to GS. The physical meeting and stakeholder feedback round have been conducted before the VPA is submitted for GS design review The Local Stakeholder Consultation would be also valid for any other Voluntary Project Activities (VPAs) implemented in Nigeria 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]. As per the national legislation on environmental impact assessment, the distribution of ICS devices is not listed in the schedule of activities that require an EIA study.[3]
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	The end-users permanently waive any claim or rights on carbon credits to the VPA implementer (also the CME of the PoA). This is confirmed by strap on ICS box and warranty booklet.

[2] https://faolex.fao.org/docs/pdf/nig18378.pdf, pg A 1004, Section 13
[3] https://www.placng.org/lawsofnigeria/laws/E12.pdf, pg 27

		improved technology, this must be communicated by contract or clear written assertions in the transaction paperwork. The end-users will need to be informed and notified that they cannot claim for emission reductions from the project.	There will be contractual agreements between distributors/retailers in which distributor/retailer waive any claim or rights on carbon credits to the VPA implementer (also the CME of the PoA). The same will be submitted to the VVB during the validation.
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 urban and peri-urban areas, and distributes the cook stoves through adequate distribution channels.	This VPA targets households in urban and peri-urban areas across the entire territory of Nigeria. ICS are distributed through direct sale/distribution and/or a variety of retail outlets across the country to end-users.
13	Conditions related to sampling requirements	The VPA complies with the sampling plan as outlined in the 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 and GS sampling requirements. The VPA sampling is conducted separately at VPA level
14	Double counting of emission reductions	Each VPA will implement a unique identification system for every efficient cooking unit distributed to avoid	The unique identification system is explained in detail in section A.3. of this document. The VPA is in adherence to the

		double counting of emission reductions.	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.

The VPA meets the requirements of the Community Services Activity Requirements, as follows –

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION AND SUPPORTING EVIDENCE FOR INCLUSION
1	Eligible Project Types	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 goal of the VPA is to distribute Improved Cook Stoves (ICS) in the households/SMEs of the host country of Nigeria
2	Type of project	(b) End-use energy efficiency: Project activities that reduce energy requirements as compared to baseline scenario without affecting the level and quality of	The VPA involves distribution of energy efficient ICS.

		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.	
3	Project Area, Boundary and scale	Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements.	The project area is point location of CEP beneficiaries in the host country of the VPA. The project boundary will be limited to the geographical boundary of the host country of the Federal Republic of Nigeria. For Improved Cookstoves, since TPDDTEC methodology is followed and there is no suppressed demand element, the guidelines of large-scale project shall be followed.
4	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.	The end users confirm that rights to the ownership of carbon credits reside with the CME according to the end user agreement signed via monitoring app etc. (refer Eligibility under GS4GG section above).

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

The VPA meets the requirements of the Section 3.1.1 of the Principles and Requirements, as follows –

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION AND SUPPORTING EVIDENCE FOR INCLUSION
1	Types of Project	Eligible projects shall include physical action/implementation on the ground. Pre-identified eligible project types are identified in the Eligibility Principles and Requirements section.	The VPA involves distribution of energy efficient ICS.
2	Location of Project	Projects may be in any part of the world.	ICS are distributed to urban and peri urban households all over the territory of the Nigeria. For more details see section A.2. of this document.
3	Project Area, Project Boundary and Scale	The Project Area and Project Boundary shall be defined. Projects may be developed at any scale although certain rules, requirements and limitations may apply under specific Activity Requirements, Impact Quantification Methodologies and Products Requirements. In order to avoid double counting the Project shall	The project area is point location of CEP beneficiaries in the host country of the VPA. The project boundary will be limited to the geographical boundary of the host country of Nigeria For Improved Cookstoves, since TPDDTEC methodology is followed and there is no suppressed demand element, the guidelines of

		not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst projects).	large-scale project shall be followed.
4	Host Country Requirements	Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations.	No EIA is required by the host country for ICS project activities. As per the national legislation on environmental impact assessment, the distribution of ICS devices is not listed in the schedule of activities that require an EIA study.
5	Contact Details	As part of the Project Documentation the Project Developer shall provide (i) name and (ii) contact details of all Project Participants: AND in case of an organisation (iii) the legal registration details and (iv) documentation by the governing jurisdiction that proves that the entity is in good standing (defined as being a legal	A cover letter has been provided as support documentation containing all the Project participants

		or other appropriate entity registered in or allowed to operate within the required jurisdiction and with no evidence of insolvency or legal/criminal notices placed against it or any of its Directors). Gold Standard retains the right (at its own discretion) to refuse use of the Standard where reputational concerns are highlighted.	
6	Legal Ownership	Full and uncontested legal ownership of any Products that are generated under Gold Standard Certification, (for example carbon credits) shall be demonstrated. Where such ownership is transferred from project beneficiaries this must be demonstrated transparently and with full, prior and informed consent (FPIC). Note that for certain Project types there is a requirement for full and uncontested legal land title/tenure to be demonstrated. These are contained within specific Activity or Product Requirements. All projects shall immediately report to Gold Standard any land title/tenure disputes arising.	The end users confirm that rights to the ownership of carbon credits reside with the CME according to the end user agreement signed via monitoring app etc. (refer Eligibility under GS4GG section above).
7	Other Rights:	As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested	N/A

		legal rights and/or permissions concerning changes in use of other resources required to service the Project (for example, access rights, water rights etc.). Any known disputes or contested rights must be declared immediately to Gold Standard by the Project Developer and resolved prior to further project implementation in affected areas.	
8	Official Development Assistance (ODA) Declaration	All Project Developers applying for project activities located in a country named by the OECD Development Assistance Committee's ODA recipient list and seeking Gold Standard Certification for carbon credits shall declare the Official Development Assistance (ODA) support. The Project Developer shall follow the GHG Emissions Reduction & Sequestration Product Requirements and submit the declaration at the time of Design Certification.	The VPA implementer has signed an ODA declaration confirming that there is no diversion of ODA. The same has been submitted to GS

A.1.2. Legal ownership of products generated by the VPA 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 Manufacturing Co.'s ownership on the carbon credits has been clearly communicated to end-users and distributors[4].

Further, as per Annex A of GHG Emissions Reduction and Sequestration Product Requirements version 2.1, as of now there are no mandatory caps enforced in the host country of Federal Republic of Nigeria for use of issued GS VERs for cookstove projects. However, if any such risk of double counting exists, the project developer commits to retiring eligible units equal to the quantity of Gold Standard VERs.

A.2. Location of VPA

>> Host country: Federal Republic of Nigeria

Nigeria is a federation of 36 states and 1 federal capital territory which are all covered under the existing VPA. Project technologies will be distributed to urban and peri-urban households across the entire Country.

GPS coordinates for the Federal Republic of Nigeria[5]:

Latitude: 9°04'39.90"North

Longitude: 8°40'38.84"East

Figure 1: Map of Federal Republic of Nigeria

[4] The warranty booklet and a photo of the strip of the box will be shared with GS and VVB.
[5] https://latitude.to/map/ng/nigeria

A.3. Technologies and/or measures

>> The VPA deploys an efficient cookstove known as Jikokoas 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.

Prior to launching sales and distribution efforts in Nigeria, BURN conducted detailed feasibility studies and willingness to pay assessments to ensure that households who received the project stoves were compliant with the baseline scenario in the VPA DD. This targeted-sales approach also ensures that project stoves are purchased primarily by low-income families at a subsidised cost.

In its early expansion into Nigeria, BURN worked with different local distributors to sell project stoves to households in areas that had already been screened from the Feasibility Studies. This was BURN's B2B approach towards stove distribution. Soon thereafter, however, BURN opted to optimize its sales strategy. Rather than rely on distributors, BURN employed its B2C strategy, focusing on a direct relationship and interface between the company and its end users.

In the B2C approach, BURN employs a three-tier product-market fit assessment. Feasibility studies are first conducted to ensure that sales agents are assigned to locations in the Country that have biomass consumption trends that align with the end user characteristics established in the Baseline Scenario. Once the feasibility studies are conducted, the sales agents then conduct end user prospecting assignments at end user households or marketplaces. These prospecting exercises offer an interactive engagement where households are educated on the project stove and benefits. Once prospecting exercises are complete, sales agents register end user data at the point of delivery, allowing BURN to develop a database of end users who can be reached for annual monitoring exercises or the numerous end user engagement activities BURN routinely engages in.

The PD has adopted a progressive distribution schedule as follows:

YEAR	PROJECTED STOVE DISTRIBUTIONS
2021	144,522
2022	50,000
2023	50,000
2024	50,000
2025	50,000
TOTAL	**344,522**

The Jikokoas 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 VPA implementer may opt to distribute other stove models in this VPA over time.

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	Stainless Steel
Burning Chamber	Stainless Steel
Ash Tray	Aluzinc
Feet	Stainless Steel

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[6]	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

[6] 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 shall be submitted to the validating VVB.

Weight	kg	5.5 kg
Fuel Chamber Volume	cm^3	1030 cm^3
Packaging Dimensions	cm	30.2 L x 30.5 W x 27.5 H

WBT Results

Parameter	Unit	Value
High power thermal efficiency (average of cold start and hot start)	%	44.6%
Firepower	kW	2.21
Boil Time	minutes	27.96

Lifetime

Warranty	2 years
Estimated Lifetime[7]	7 to 10 years

Stove Manufacturer	BURN
Stove Model	Ecoa Char MMJ[8]
Stove Type	Charcoal Stove

Materials

Stove Body	CRCA Carbon Steel, painted hammer tone black epoxy powder coat
Pot Rest	Stainless Steel
Burning Chamber	Stainless Steel

[7] 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 shall be submitted to the validating VVB

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

Ash Tray	Aluzinc
Feet	Aluzinc
Handles	Stainless Steel and Polypropylene plastic[9]

Measurements

Height	cm	22.8 cm
Diameter (stove top)	cm	26.7 cm
Weight	kg	3.0 kg
Fuel Chamber Volume	cm^3	1,152 cm^3
Packaging Dimensions	cm	29.5 L x 29.5 W x 24.0 H[10]

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[11]	7 to 10 years

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

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

[11] 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 shall be submitted to the validating VVB.

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 a unique serial number (USN). The USN has the following format comprising of 9 digits[12]:

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:

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

- 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: 102728110

- "1" stands for Jikokoa product ID
- "027280" for S1-S6, meaning it was the 27,281st Jikokoa produced.
- "11" 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 VPA

>> 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 1800 MWh as outlined in the ER calculation excel spreadsheet.

A.5. Funding sources of VPA

>> 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 GS 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)

>>

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. A warranty booklet explaining that the rights on carbon credits are transferred from the end-users to BURN Manufacturing Co shall be signed by each end user.
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 the country of Nigeria as described in section A.2 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.
	The ICS under this VPA will avoid double

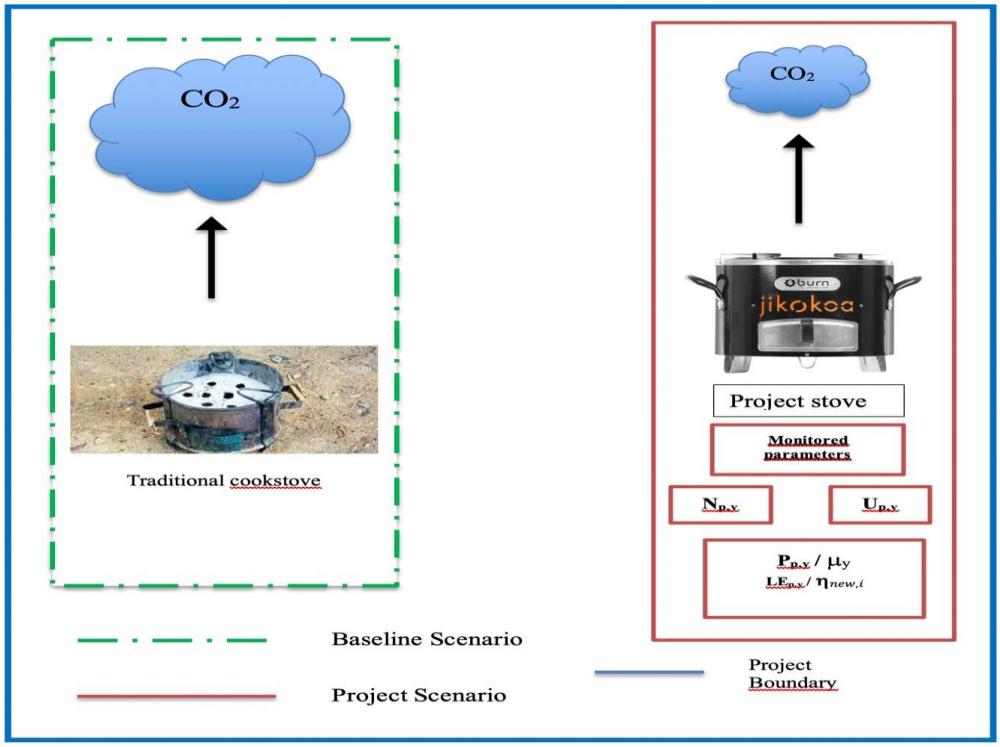
Project proponents must therefore have a survey mechanism in place together with appropriate mitigation measures so as to prevent any possibility of double counting.	counting of emissions reductions through the Unique Serial Number (USN). Each device under this VPA is unquestionably assigned to the PoA '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. A snapshot of the database and a photograph of the ICS shall be provided to the VVB.
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 2.05 to 2.21kW (depending on the model). Manufacturers specification to be provided to VVB
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 after the introduction of the improved technology.	In its B2C approach, described above, Sales agents are trained on a variety of topics that they are required to educate consumers on at the point of installation. Included in this, is a discussion on the harms of the use of the continued use baseline stoves. The CME monitors sales agent's efficacy in this parameter by conducting follow up visits and follow up calls (post-installation) with households to confirm that they have been educated on the adverse implications of continued use of the baseline stoves and to verify if the households have stopped using their baseline stoves. Recognizing that customers will be encouraged to discontinue and remove the baseline technology the CME is aware that some of

	the households may still continue using the baseline stoves. The CME's monitoring surveys 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, Pp,y is based on subsumed Project Fuel Tests and thus use of traditional stove/fuel is 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 beneficiaries 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 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	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.

the project activity and existing plantations that were established in the context of other activities but will supply biomass feedstock.	
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 adequate precision. The project fuel/stove combination may include instances in which the project stove is a baseline stove.	Qualitative surveys are conducted as part of the monitoring surveys to investigate air quality with the project 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. VPA 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 the Federal Republic of Nigeria. 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	CO2	**Yes**	Main source of emission in the baseline
		CH4	**Yes**	Important source of emissions
		N2O	**Yes**	Significant for Fuelwood, hence included
	Production of fuel	CO2	**Yes**	Important source of emissions
		CH4	**Yes**	Important source of emissions
		N2O	**Yes**	Important source of emissions
	Transport of fuel	CO2	**No**	Not included for simplification and conservativeness
		CH4	**No**	Not included for simplification and conservativeness
		N2O	**No**	Not included for simplification and conservativeness
Proje	Heat delivery	CO2	**Yes**	Main source of emission in the project activity
		CH4	**Yes**	Important source of emissions
		N2O	**Yes**	Significant for Fuelwood, hence included
	Production of	CO2	**Yes**	Important source of emissions
		CH4	**yes**	Important source of emissions

	fuel	N2O	**Yes**	Important source of emissions
	Transport of fuel	CO2	**No**	Not included since no increase of fuel transport compared to the baseline
		CH4	**No**	Not included since no increase of fuel transport compared to the baseline
		N2O	**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 majority of households in Nigeria use solid fuel for cooking purposes[13]. Firewood is predominantly used by the rural and urban households as the main fuel for cooking. 83.0% of rural household use firewood while 3.0% use charcoal and **37%** of urban household use firewood and **9%** of use charcoal for cooking. In the absence of the implementation of this VPA, households in Nigeria will continue to use traditional stoves for cooking with either firewood or charcoal. In the absence of the implementation of this VPA, households in Nigeria will continue to use traditional stoves for cooking with either firewood or charcoal.

A baseline survey along with a KPT to determine the baseline woody biomass consumption was conducted between 28th November 2022 and 10th December 2022 in 120 urban and peri-urban households across the 36 states and Federal Capital within Nigeria that are included in the project boundary.

The BURN staff trained a local team of 54 surveyors, well aware about the local culture, language and with previous surveyexperience. The training was adequately tailored to the baseline surveys/KPTs and included an interactive discussion of questions with

[13] https://dhsprogram.com/pubs/pdf/FR359/FR359.pdf

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 500 m distance from each other to ensure a certain geographic representativeness.
The KPT protocol published at Clean Cooking Alliance website[14] and the guidelines of methodology 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 households were asked a few questions with regard to household size, cooking patterns and fuels and cooking devices used. None of the 120 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 devicesby 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 3.85 kg/day/household. 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 protocols described in the methodology TPDDTEC v 3.1.

[14] https://www.cleancook0ngall0ance.org/technology-and-fuels/test0ng/protocols.html

The sample size was sufficient to achieve a precision level of 5% at 90% confidence. Hence, the 90/30 confidence/precision level was met for the baseline KPT analysis.

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

The suppressed demand baseline will not be used.

Calculation of fraction of Non-Renewable Biomass fNRB

The fNRB value has been taken from C4 EcoSolutions 3rd party report EcoSolutions (Pty) Ltd. 3rd party report which has been calculated based on CDM tool 30 version 3.0. The fNRB value for Nigeria is 0.93

B.5. Demonstration of additionality

>>The table below is only applicable if the proposed project is deemed additional, as defined by the applied approved methodology or activity requirement or product requirement.

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 to prove Financial Additionality at the time of Design Certification: a) Positive list (Annex B) b) Projects located in LDC, SIDS, LLDC c) Micro-scale projects"
Describe how the proposed VPA meets the criteria for deemed additionality.	The project falls under the positive list (Annex B, item 1.1.3). The project is composed of isolated units where the users of the technology are households and where each unit results in <= 600 MWh thermal energy savings per year (see worksheet tab 'Th. Energy savings unit level' of the ER calculation excel spreadsheet). Hence paragraph 4.1.9, (a) as per the Community Services Activity Requirements is met.

B.5.1. Prior Consideration

>> The stakeholder consultation occurred after the start of the project, resulting in the classification of this project as retroactive. The initial submission to Sustaincert took place on 19/08/2022, aligning within the one-year timeframe from the project's commencement on 19/08/2021. It is noteworthy that Burn integrated carbon revenue considerations into the decision-making process before the project's initiation, as evidenced by the MoU signed on dated 30/03/2021.

B.5.2. Ongoing Financial Need

>>N/A

B.6. Sustainable Development Goals (SDG) outcomes

Relevant Target/Indicator for each of the three SDGs

		SDG IMPACT
SUSTAINABLE DEVELOPMENT GOALS TARGETED	MOST RELEVANT SDG TARGET	**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
4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Target 4.3	Number of people receiving skill development training
5. Achieve gender equality and empower all women and girls	Target 5.4	Average time saving associated with cooking in the project scenario
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
15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Target 15.3	Total non-renewable biomass saved

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

>> Methodological choices/approaches related to SDG 13

The outcome of the SDG 13 will be measured as reduced CO_2e emissions applying the GS methodology TPDDTEC v 3.1. 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:

$$ERy = \Sigma_{b,p} (N_{p,y} * U_{p,y} * P_{p,b,y} * NCV_{b,fuel} * (f_{NRB,b,y} * EF_{fuel,CO2} + EF_{fuel,nonCO2})) - \Sigma LE_{p,y}$$

Equation (1)

Where:

ER_y	8.06	Emission reduction per stove per year (tCO_2e/year)
$N_{p,y}$	365	Cumulative number of project technology-days included in the project database for project scenario p against baseline scenario b in year y
$U_{p,y}$	90%	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)

$P_{p,b,y}$	0.842	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
$f_{NRB,b,y}$	0.93	Fraction of biomass used in year y for baseline scenario b that can be established as non-renewable biomass
$NCV_{b,fuel}$	0.0156	Net calorific value of the fuel that is substituted or reduced. (IPCC default for wood fuel, 0.0156 TJ/ton)
$EF_{b,fuel,CO2}$	112	CO_2 emission factor of the fuel that is reduced. (IPCC default for charcoal fuel, 112 tCO_2/TJ)
$EF_{b,fuel,nonCO2}$	9.46	Non-CO_2 emission factor of the fuel that is reduced.(IPCC default for charcoal fuel, 9.46 tCO_2/TJ)
$LE_{p,y}$	0.00	Leakage for project scenario p, in year y (tCO_2e/yr)

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 approaches related to SDG 4

The successful implementation of the project will require multiple training efforts to ensure adequate implementation capacity. These training sessions, availed primarily to

young women and men (ages 18 – 36) in Nigeria will encompass a variety of training modules including data collection, survey development, stakeholder consultation management and specific training on the use of ICS. These transferrable skill sets will add value to the recipients of these training modules.

The specific SDG 4 impact to be assessed in the project scenario is the number of people receiving skill development training. Records of training sessions, confirming training materials, signed attendance lists and locations will be provided as evidence of the total number of people trained for the project activity.

Methodological approaches related to SDG 5

A key benefit of the use of ICS technology is the time savings, particularly for women, during meal preparation. The utilization of ICS technology can save up to 25 minutes of cooking time – savings which can be used to alleviate the domestic constraints that women suffer in unaccounted or devalued domestic labor.

The specific SDG 5 impact to be assessed in the average time saving associated with cooking in the project scenario. During monitoring campaigns, end-users will provide time estimates of cooking duration in the project scenario against estimates in the baseline scenario. The average difference, statistically weighted for stove age, shall be used to monitor the time savings in the project scenario.

Methodological approaches related to SDG 7

The project design in anchored on the distribution and use of improved cookstove (ICS) technologies to replace the inefficient baseline cookstoves. These technologies carry significant benefits to households and end-users alike as have been defined ex-ante and as will be monitored in the project scenario. The baseline scenario is the continued use of baseline technologies with low thermal efficiencies and associated risks to the health and living conditions of households in Nigeria.

The specific SDG 7 impact to be assessed in the project scenario is the number of sold/distributed ICS in use. This will be calculated as a function of the total number of ICS sold, discounted against the Usage rate established during monitoring campaigns.

Np,y * Up,y

Where:
Np,y = Number of stoves distributed
Up,y = Usage rate

Methodological approaches related to SDG 8

The implementation of the project activity will require the recruitment and employment of varied personnel.

The specific SDG 8 impact to be assessed is the total number of jobs created. The number of created jobs will be determined during the monitoring period to include both Casual and Contract employees. An employee list will be provided as a supporting document to evidence impact.

Methodological approaches related to SDG 15

The use of the ICS technology will create fuel savings, calculated as the aggregate difference in total charcoal consumed for cooking activities in the project scenario as compared to the baseline scenario. The production and consumption of charcoal in Nigeria is by and large a major contributor to deforestation rates as evidenced by the non-renewable Biomass fraction in the country (0.93). The project will deploy at least 344,522 ICSs and as such, the project will have significant effect on reduced non-renewable biomass consumption rates in the country.

The specific SDG 15 impact to be assessed is the total non-renewable biomass saved. The average fuel savings for each household (the monitored value **Pp,b,y**) shall be multiplied by the discounted number of operational ICSs (Np,y * Up,y) and thereafter multiplied by the nonrenewable Biomass fraction in the country (f NRB,b, y).

Nonrenewable Biomass saved = Pp,b,y * Np,y * Up,y * f NRB,b, y

B.6.2. Data and parameters fixed ex ante

SDG13

Data/parameter	$EF_{b,wood,CO2}$
Unit	tCO2/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	Calculation of baseline emissions
Additional comment	If EF is in units of tCO2/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	tCO2/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 tCO2/t_fuel, remove NCV term from emission calculations. Term can include a combination of emission factors from fuel production, transport, and use.

Data/parameter	$EF_{p,non-CO2}$
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 2.9)
Value(s) applied	9.46
Choice of data or Measurement methods and procedures	volume 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	NCVp
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	$f_{NRBi,y}$
Unit	fraction
Description	Non-renewability status of woody biomass fuel in scenario i during year y
Source of data	fNRB report by C4 EcoSolutions (Pty) Ltd.
Value(s) applied	0.93

Choice of data or Measurement methods and procedures	fNRB assessment based on CDM fNRB tool, Tool 30, version 03.0[15]
Purpose of data	Emission Reduction calculation
Additional comment	The fNRB value will remain fixed during the crediting period

Data/parameter	Wood-to-charcoal conversion factor
Unit	kg firewood / kg charcoal
Description	Conversion factor for transforming fuel wood into charcoal
Source of data	IPCC default value https://www.ipcc-nggip.iges.or.jp/public/gl/guidelin/ch1ref3.pdf (page 1.45)
Value(s) applied	6
Choice of data or Measurement methods and procedures	The methodology TPDDTEC 3.1 as per section 7. Performance Field Tests and Calculation of Emission Reductions, refers to use of IPCC, credible published literature, project-relevant measurement reports, or project-specific monitoring to get a wood-to-charcoal conversion ratio.
Purpose of data	Used to calculate fuel savings in fuel wood equivalent
Additional comment	Fixed ex-ante at VPA level

Data/parameter	$P_{b,y}$

[15] https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v3.0.pdf

Unit	t/household/year
Description	Quantity of woody biomass that is consumed in baseline scenario b during year y
Source of data	Baseline KPT analysis
Value(s) applied	1.41
Choice of data or Measurement methods and procedures	This value is based on baseline KPT (Baseline survey results provided to VVB for more details)
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)

Data/parameter	NCV_{LPG}
Unit	TJ/ton
Description	Net calorific value of the LPG
Source of data	IPCC default 2006, volume 2, chapter 1 (Table 1.2)
Value(s) applied	0.0473
Choice of data or Measurement methods and procedures	Default IPCC value for LPG is applied
Purpose of data	Calculation of baseline and project emissions
Additional comment	-

Data/parameter	$EF_{LPG,CO2}$
Unit	tCO_2/TJ

Description	CO_2 emission factor arising from use of LPG
Source of data	2006 IPCC Guidelines for National Greenhouse Gas Inventories, volume 2, chapter 2 (Table 2.2)
Value(s) applied	63.1
Choice of data or Measurement methods and procedures	Default IPCC value for LPG is applied
Purpose of data	CO_2 emission calculation
Additional comment	-

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 outcomes of SDG 13 (i.e. CO2e reductions) are provided in a separate excel spreadsheet uploaded to GS registry.
For data/parameters available before design certification, values contained in section B.6.2 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 51% on 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 94.30% 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 4

N/A. For ex-ante purposes, the number of people who have received training has been estimated to be 93 and no specific calculation is needed.
Monitoring of SDG 4 will be executed via the analysis of training records and training participants lists to quantify the total number of recipients of training sessions rolled out for the implementation of this VPA.

Ex-ante calculations related to the outcomes of SDG 5

N/A. For ex-ante purposes, it is estimated that the use of the project technologies will reduce the effective time required for cooking by 79 minutes as a function of the thermal efficiencies inherent to the stove design. Since monitoring of SDG 5 is conducted through a qualitative evaluation of sample households during the usage/monitoring surveys, 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 304 and no specific calculation is needed.
Monitoring of SDG 8 is conducted through the employee lists summing up the total number of jobs created.

Ex-ante calculations related to the outcomes of SDG 15

The total non-renewable biomass saved shall be computed as a function of the average fuel savings for each household (i.e. with reference to the monitored value **Pp,b,y**) and the discounted number of operational ICSs (i.e. with reference to the monitored value Up,y) and thereafter multiplied by the non-renewable Biomass fraction in the country (f NRB,b, y). Ex Ante estimation of 1,047,863.0 has been applied.

Nonrenewable Biomass saved = Pp,b,y * Np,y * Up,y * f NRB,b, y

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

SDG 13

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	1,946,006	779,143	1,166,863
Year 2	2,619,262	1,048,702	1,570,561
Year 2	3,292,518	1,318,260	1,974,258
Year 4	3,965,775	1,587,819	2,377,956
Year 5	4,639,031	1,857,378	2,781,653
Total	16,462,592	6,591,302	9,871,290
Total number of crediting years		5	
Annual average over the crediting period	**3,292,518**	**1,318,260**	**1,974,258**

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 51% on average.

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0%	51%	51%
Year 2	0%	51%	51%
Year 2	0%	51%	51%
Year 4	0%	51%	51%
Year 5	0%	51%	51%
Total	0%	51%	51%

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.

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0%	94.30%	94.30%
Year 2	0%	94.30%	94.30%
Year 2	0%	94.30%	94.30%
Year 4	0%	94.30%	94.30%
Year 5	0%	94.30%	94.30%
Total	0%	94.30%	94.30%

SDG 4

The training opportunities availed by way of implementation of the project activity would not be realized in its absence. It is estimated that the project activity has net positive impact.

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	93	93
Year 2	0	93	93
Year 2	0	93	93
Year 4	0	93	93
Year 5	0	93	93
Total	0	93	93

SDG 5

The fuel savings projected to be experienced in the project scenario are not present in the baseline. The time savings in the project scenario are a net benefit.

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	79	79
Year 2	0	79	79
Year 2	0	79	79
Year 4	0	79	79
Year 5	0	79	79
Total	0	79	79

SDG 7

It is estimated that an average of 244,522 ICS will have been distributed by the end of the first crediting period. An average usage rate of 90% is expected[16].

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	130,070	130,070
Year 2	0	175,070	175,070
Year 2	0	220,070	220,070
Year 4	0	265,070	265,070
Year 5	0	310,070	310,070
Total	0	220,070	220,070

SDG 8

It is estimated that the project creates at least 55 jobs over 5 years (1st crediting period).

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	304	304

Year 2	0	304	304
Year 2	0	304	304
Year 4	0	304	304
Year 5	0	304	304
Total	0	304	304

SDG 15

The non-renewable biomass savings are created in the project scenario as a function of reduced charcoal consumption. The estimates of the NRB savings presented below are a net benefit

YEAR	BASELINE ESTIMATE	PROJECT ESTIMATE	NET BENEFIT
Year 1	0	611,499.1	611,499.1
Year 2	0	823,058.3	823,058.3
Year 2	0	1,034,617.5	1,034,617.5
Year 4	0	1,246,176.7	1,246,176.7
Year 5	0	1,457,735.9	1,457,735.9
Total	0	**5,173,087.5**	**5,173,087.5**

B.7. Monitoring plan

B.7.1. Data and parameters to be monitored

SDG 13

Data / Parameter	$N_{p,y}$

[16] Npy*Usage Rate = 244,522*0.9 = 220,070

Unit	Number of project cookstove credited (units)
Description	Cookstoves in the project database for project scenario p through year y
Source of data	Distribution database
Value(s) applied	For ex-ante estimation, it has been assumed that 310,070stoves/year are being distributed.[17]
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 EchoMobile[18] in the database (od any similar phone based application: • Unique serial number (USN) of the ICS • Date of shipment to distributor/retailer • Name of distributor/retailer • Quantity of ICS distributed • Geographic area of distributor/retailer • Model type of the ICS Besides, the distribution database will contain end-user contact details (name, address, mobile number, or national ID number, mode of use) 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 CO_2e emission reductions
Additional comment	The total distribution record is divided based on project scenario to create the project database.

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

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

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 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. Usage will be confirmed during monitoring/usage surveys.

Data / Parameter	$P_{p,y}$
Unit	t/household/year
Description	Quantity of woody biomass (in charcoal equivalent)that is consumed in project scenario p during year y
Source of data	Project KPT
Value(s) applied	0.56
Measurement methods and procedures	Project KPTs from MPI
Monitoring frequency	Every 2 years
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	Jikokoa G3.5: 48.1% Jikokoa Xtra: 44.6% MMJ: 49.29%
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	μy
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	51% (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	Usage Survey
Value(s) applied	93.40% 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 4

Data / Parameter	Number of people trained/ year
Unit	Number
Description	Number of people who participated in project trainings
Source of data	Training records and participation lists
Value(s) applied	93
Measurement methods and procedures	Training records and participation lists
Monitoring frequency	At least once every two years (biennial)
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on SDG 4
Additional comment	Quantitative assessment.

SDG 5

Data / Parameter	Average number of minutes saved while cooking in project scenario (user estimate of comparative cooking time in baseline to project scenario)
Unit	Minutes
Description	End user estimate of the time savings on average for cooking in the project scenario
Source of data	Usage Surveys
Value(s) applied	79
Measurement methods and procedures	Statistical average of the end-user reported difference between the number of minutes spent cooking in the project scenario compared to baseline conditions for similar meals
Monitoring frequency	At least once every two years (biennial)
QA/QC procedures	-
Purpose of data	Reporting on SDG 5
Additional comment	This parameter is measured 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	244,522 ICS are estimated to be distributed and in use (annual average).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	304 jobs expected to be created
Measurement methods and procedures	-
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	-

SDG 15

Data / Parameter	Total amount of non-renewable fuel savings due to displacement or energy efficiency improvements of baseline technology
Unit	Tons
Description	Reduced non-renewable biomass consumption attributed to charcoal savings
Source of data	Project database, Monitoring & Usage Surveys
Value(s) applied	1,034,617.50
Measurement methods and procedures	Computed as a function of specific fuel savings for an individual technology multiplied by the total number of operational technologies (discounted for usage rate in

	the monitoring period) and the non-renewable Biomass fraction in Nigeria.
Monitoring frequency	Annual
QA/QC procedures	Transparent data analysis and reporting
Purpose of data	Reporting on sustainable development of the project
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[19]. 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.

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.

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:

[19] 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.

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 woody biomass in Nigeria is continuously rising. Since alternative fuels (like LPG or electricity) are out of reach for the majority of people. Hence, the share of NRB remains high and it will not have a leakage impact on other carbon projects in Nigeria.
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 Nigeria 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*[20] 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, provided it is representative of annual conditions. Choosing the ageing test approach, the PP would have to ensure to

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

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 during the year *y*.

All of the aforementioned surveys/tests (except KPTs/WBTs) are intended to be carried out with smartphones (by using e.g. Echomobile 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.

The survey for SDGs 1,3 and 5 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 usage survey has also been adapted to seek out qualitative responses from end-users on their estimated time savings in the cooking process as a comparison between estimate total time for cooking in the baseline scenario and the equivalent time required in the project scenario. The values from this assessment will provide the basis for SDG 5 computations.

SDGs 4 and 8 are determined from the analysis of training and employment records and or databases.

SDG 15 is an aggregated calculation based on the realized project fuel savings, usage rate, project technologies in use and the established non-renewable biomass fraction.

This value therefore shall be calculated from usage survey data and the applicable established f NRB fraction

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 EchoMobile[21] 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 of distributor/retailer
- Model type of the ICS

Besides, the distribution database will contain end-user contact details (name, address, mobile number, or national ID number, mode of use) 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.

The USN of each ICS entered into the distribution database will be linked to a distribution date (recorded during distribution). 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. 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[22]:

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

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

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. 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: 202728110

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

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 VPA

>>19/08/2021

The above mentioned date is the date when the distribution of ICS under this VPA has 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 VPA

>>15 years (3 x 5 years)

C.2. Crediting period of project

C.2.1. Start date of crediting period

>>13/12/2021

C.2.2. Total length of crediting period

>>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
Principle x.y	

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. Nigeria is an ILO member since 1960 and has ratified ILO 111 on 02 Oct 2002.[23] ICS can be purchased and used by any of the women within the project 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

[23] https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:11200:0::NO::P11200_INSTRUMENT_SORT,P11200_COUNTRY_ID:2,103259

	income generating activities and education. The project will help to improve women 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. A strong focus shall be 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 Nigeria's constitution. Republic of Nigeria has ratified the principle of equality and Non-Discrimination into its respective constitution, which shall guarantee equal gender rights. Accordingly, national integration shall be actively encouraged, whilst discrimination on the grounds of place of origin, sex, religion, status, ethnic or linguistic association or ties shall be prohibited.[24] It will be ensured that the project is committed to equal gender rights and women empowerment following Nigeria's constitution.

[24] Constitution of the Federal Republic of Nigeria 1999, as amended to 2018 (unwomen.org)

Question 3 - Is an Expert required for the Gender Safeguarding Principles & Requirements?	Not applicable, since not necessary.
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

>> The local stakeholder consultation (LSC) was conducted on 1st, 3rd and 5th August 2022. The detailed LSC report has been submitted to GS. The Local stakeholder meetings took place in 3 locations namely: Kwara, Jos and Kano regions of Nigeria. The agenda of the meetings were all similar:

1. Opening of the meeting with an introduction of the Project Developer and stakeholders and objective of the meeting i.e., the CME shared project information and also explained that the objective was to any feedback and suggestions from all stakeholders to further improve the project.

2. The CME explained the project in non-technical terms, providing project details including the location, project technology, implementation timelines, etc. The CME used actual stoves on display to explain the range of project technology models from BURN – Jikokoa Classic and Jikokoa Xtra stoves. CME also took this time to provide all relevant information about BURN manufacturing in Nigeria.

3. Question and Answer session where stakeholders are given an opportunity to ask any questions. All participants were given pens and notebooks to note down what they deem as key information.

4. Review of Project sustainable development impacts in a simplified manner, thereafter, inviting the stakeholders to provide their feedback. This session was also left open for Stakeholders to provide any feedback on any other impacts they felt were relevant.

5. A discussion on any risks and the Safeguarding principles the Project will put in place. Stakeholders were invited to raise their concerns. During the meeting, no adverse risks were identified by stakeholders.

6. Discussion on the Monitoring plan for the Sustainable development impacts

7. Discussion on the Grievance mechanism. As part of the meeting discussions, all stakeholders were informed of the various ways through which they can get in touch

with the Projects should they have any grievances or complaints. The Grievance mechanisms discussed have been summarized in section E.2 of this VPA DD.

8. Some concerns that were raised during the meetings were about the affordability of the stove, accessibility across the entire country for the project stove, lifespan of the stove and employment opportunities for the local communities in the project. All these topics were addressed to the satisfaction of all the stakeholders in the meeting as described in the LSC report section C.3. Special attention was paid to women's concerns, with the CME ensuring that women felt welcome to participate in the meeting. The facilitator of the meeting was a female, and this was intentionally done by CME to encourage women to participate and engage in the meeting.

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)	BURN STOVES NIGERIA LIMITED, Suite 10B JBS Plaza No. 375 Civic Centre Road, Opp. Yan Siminti, Kano State, Nigeria.
GS Contact (mandatory)	help@goldstandard.org
Other	Burn Nigeria Customer Care Line +2347025006000 Burn: info@burnmfg.com

SECTION F. Eligibility and inclusion criteria for VPAs inclusion

>>

NO.	ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	DESCRIPTION OF THE VPA IN RELATION TO THE CRITERIA, MEANS OF VERIFICATION/SUPPORTING EVIDENCE FOR INCLUSION
1	Geographical boundary	ICS distributed 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 of the Republic of Nigeria. For more details see section A.2. 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 shall be confirmed by a letter signed by the VPA implementer submitted to VVB
3	Technology	Each VPA will implement improved biomass cook stoves.	The VPA implements highly efficient cookstoves known as 'Jikokoa'. Detailed manufacturer's technology specifications are listed in section A.3 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 19/08/2021, 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 EchoMobile which shall be submitted to VVB. The project start date is before the 1st Round of Local Stakeholder Consultation, hence, the VPA is retroactive.
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 <= 1800 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 1800 MWh as outlined in the ER calculation excel spreadsheet that shall be submitted to VVB.
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 the VPA shall be submitted to GS.

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.
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 paperwork. The end-users will need to be informed and notified that they cannot claim for emission reductions from the project	The end-users permanently 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 on ICS box and warranty booklet. Supporting documentation related to strap and warranty booklet shall be submitted to GS. There is a contractual agreement between distributors/retailers in which distributors/retailers waive any claim or rights on carbon credits to the VPA implementer (also CME of the PoA). A sample agreement shall be submitted to VVB.

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 urban and peri-urban areas, and distributes the cook stoves through adequate distribution channels.	This VPA targets households in urban and peri-urban areas across the different regions of Nigeria. ICS are distributed through direct sale/distribution and/or a variety of retail outlets across the country to end-users.
13	Conditions related to sampling requirements	The VPA complies with the sampling plan as outlined in the 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 and GS sampling requirements. The VPA sampling will be conducted separately at VPA level. 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.3. 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.

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. BURN will monitor its compliance with all human rights conventions to ensure full compliance with national and internal laws respecting human rights. 2. 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	N/A

		and is no complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights. The Republic of Nigeria has ratified many UN Human Rights Conventions.[25] 3. 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			

[25] Nigeria (claiminghumanrights.org)

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 non discrimination, equal 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)	No	The project aims to make a substantive contribution to the women and girls as can be evidenced in its SDG 5 goals referenced in the VPA DD. BURN adopts a non-discrimination stance in all its employment opportunities it offers with respect to employment opportunities offered and equal wages for equal work served. The Project is in line with Nigeria's constitution. Nigeria has ratified the principle of equality and Non-Discrimination into its respective constitution, which shall guarantee equal	N/A

		gender rights. Nigeria has ratified the principle of equality into its respective constitution, which shall guarantee equal gender rights. The Part 3 of the document further states "aims at promoting or furthering the interests of - (i) any faith or religious group; (ii) any tribal group, place of origin, race or gender; (iii) only a particular area within any part of the United Republic;"	
Principle 3. Community Health, Safety and Working Conditions			
1. The Project shall avoid community exposure to increased health risks and shall not adversely	No	The implementation of the project activity will promote communal and individual health benefits, primarily via	N/A

affect the health of the workers and the community		the avoided emissions of GHGs, PM2.5 & CO. None of the project implementation activities expose any of BURN's employs to real or perceived adverse health impacts. 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.	

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	BURN intends to foster positive relationships in the communities within which the project is implemented in, and will take care to ensure that the implementation of the project activity respects all cultural and historical heritage sites within its project boundaries. 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 the Federal Republic of Nigeria and it does not require alteration, damage or removal of any historical, artistic, traditional, religious or cultural heritage issues.	**NA**
>>			
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	BURN, respecting individual and communal ownership and access, will monitor its project activities to ensure that there are no eviction or displacements events associated with the project activity. The project activity will introduce portable improved cookstoves in urban and peri-urban households in Nigeria and therefore no physical or economic relocation of people is involved. The use of efficient cookstoves is voluntarily.	**NA**
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,	**No**	BURN, respecting individual and communal ownership and access, will monitor its project activities to ensure that land rights, in all respects are maintained and in no way adversely impacted by the project activity. The project	**NA**

usage rights or land ownership? >>		doesn't require any change to land tenure arrangements and/or other rights. The project does not involve land-use tenure.	
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**	BURN intends to foster positive relationships in the communities within which the project is implemented in and will take care to ensure that the implementation of the project activity respects all indigenous people's rights within the project area. There are no indigenous people present within the area of influence nor the project has an impact on territory claimed by indigenous people.	**NA**
Principle 5. Corruption			
1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt Projects	No	BURN has a zero tolerance to corruption and will monitor and track the project activity for compliance with national and internal legislation on	NA

		anti-corruption practices. The Project doesn't involve, be complicit in or inadvertently contribute to or reinforce corruption or corrupt 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	No	BURN employs best practice in its hiring practices and ensures that all national and internal laws and protections of labor rights are protected for all employees. 1. The project is implemented on the ground by the enterprise BURN in	NA

3. Working agreements with all individual workers shall be documented and implemented and include: 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.		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. Nigeria has ratified many ILO Conventions, amongst others convention 100 (Equal Remuneration Convention) and convention 98 (Right to Organise and Collective Bargaining Convention). 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	

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		the principles and standards of the ILO conventions. In fact, Nigeria has ratified many ILO Conventions, amongst others convention 29 (Forced Labour Convention) and 105 (Abolition of Forced Labour Convention). 2. The workers are able to establish and join labour organizations. 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. Nigeria has ratified ILO Convention 182 (Worst Forms of Child Labour Convention). All the works will be made by using appropriate equipment, training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures.	
Principle 6.2 Negative Economic Consequences			
1. Does the project cause negative economic consequences during and after project implementation?	**No**	BURN's improved cookstove delivers a positive impact to the environment .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	NA
>>			

		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.	
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.	NA
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.	NA

>>			
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.	NA
>>			
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	The project will not cause additional erosion and/or water body instability of or disrupt the natural pattern of erosion.	NA
>>			
Principle 9.1 Landscape Modification and Soil			
Does the Project involve the use of land and soil for	No	The Project itself does not involve the use of land and soil	NA

production of crops or other products? >>		for production of crops or other products.	
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.	NA
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.	NA
Principle 9.4 Release of pollutants			

Could the Project potentially result in the release of pollutants to the environment?	Potentially	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.	NA
>>			
Principle 9.5 Hazardous and Non-hazardous Waste			
Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	The Project is not involving the manufacture, trade, release, and/or use of hazardous chemicals and or materials.	NA
>>			
Principle 9.6 Pesticides & Fertilisers			
Will the Project involve the application of pesticides and/or fertilisers?	No		NA
>>			
Principle 9.7 Harvesting of Forests			
Will the Project involve the harvesting of forests?	No	No harvesting of forests is involved.	NA
>>			

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.	NA
>>			
Principle 9.9 Animal husbandry			
Will the Project involve animal husbandry?	No	The Project doesn't involve animal husbandry.	NA
>>			
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.	NA
>>			
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	BURN has designed the project activity to deliver a net positive environmental benefit. a) The project boundary is the physical, geographical sites of the distributed cookstoves. There are no endangered species identified as potentially being present the project boundary. The distributed cookstoves are not expected to potentially impact other areas where endangered species may be present through transboundary affects.	NA
>>			

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 4 - DESIGN CHANGES

A4.1. Details of proposed or actual design change

>> N/A

A4.2. Describe the Impacts of Design Change on the following

a. Additionality

>>N/A

b. Applicability of methodology and other methodological regulatory documents with which the project activity has been certified

>> N/A

c. Compliance with the monitoring plan of the applied methodology

>> N/A

d. Level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan

>> N/A

e. ***Scale of the project activity***

>> N/A

f. Stakeholder consultation

>> N/A

g. Sustainable development criteria

>> N/A

h. Safeguarding Assessment

>> N/A

i. Compliance with applicable legislation

>> N/A

Revision History

Version	Date	Remarks
2.1	14 April 2023	Integrated the design change memo as annex of the document.
2.0	4 May 2022	
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