



Gold Standard
for the Global Goals

TEMPLATE

KEY PROJECT INFORMATION & PROGRAMME DESIGN DOCUMENT (POA-DD)

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VERSION **2.2**

RELATED SUPPORT

- [Programme of Activity requirements](#)
 - [TEMPLATE GUIDE Key Project Information & PoA Design Document v.2.2.1](#)
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Key Project Information

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KEY PROJECT INFORMATION

GS ID of Programme	GS1247
Title of Programme:	Improved Kitchen Regimes Multi-Country PoA
Type of PoA	<input checked="" type="checkbox"/> Non – Forestry and/or Non -AGR PoA <input type="checkbox"/> Forestry and/or AGR PoA
VPAs scale included in the PoA <i>Note that same PoA can included VPAs of different scales. Please select all applicable.</i>	<input checked="" type="checkbox"/> Microscale <input type="checkbox"/> Small scale <input type="checkbox"/> Large scale
Start Date of POA	01/05/2013
Date of Design Certification	18/12/2012
Start date of crediting cycle of PoA	01/05/2020
Version number of the PoA-DD	16.2
Completion date of the PoA-DD	18/02/2025
Coordinating/managing entity	CO2balance UK Ltd.
Project Participants and any communities involved	Various partner organisations in target countries to be mentioned at the VPA level
Host Country (ies)	Burkina Faso Eritrea Ethiopia Gambia Guatemala Haiti Malawi Mozambique Rwanda Sierra Leone Tanzania Togo Uganda Zambia

	Zimbabwe
Activity Requirements applied	<input checked="" type="checkbox"/> Community Services Activities <input type="checkbox"/> Renewable Energy Activities <input type="checkbox"/> Land Use and Forestry Activities/Risks & Capacities <input type="checkbox"/> N/A
Other Requirements applied	VERs, Gender Certification
Methodology (ies) applied and version number	GS TPDDTEC v3.1 GS TPDDTEC v4.0 GS Simplified Methodology for Efficient Cookstoves v1.1 GS Methodology for Emission Reductions from Safe Drinking Water Supply v1.0
Product Requirements applied	<input checked="" type="checkbox"/> GHG Emissions Reductions & Sequestration <input type="checkbox"/> Renewable Energy Label <input type="checkbox"/> N/A

REAL CASE VPAS (ALL REAL CASE VPAS INCLUDED IN THE POA)

GS ID	Title
GS11046	GS1247 VPA 266 Burkina Faso Safe Water
GS6235	GS1247 VPA 134 Zoba Maekel Community Boreholes
GS6041	GS1247 VPA 129 Zoba Anseba Community Safe Water
GS3262	GS1247 VPA 28 Improved Kitchen Regimes: improved Stove in Zoba Anseba, Eritrea
GS5038	GS1247 VPA 65 Zoba Debub Community Boreholes
GS10735	GS1247 VPA 256 Northern Ethiopia Community Safe Water
GS5325	GS1247 VPA 89 Southern Ethiopia Efficient Cook Stoves
GS5322	GS1247 VPA 86 Southern Ethiopia Community Boreholes

GS7580	GS1247 VPA 224 The Gambia Safe Water
GS12164	GS1247 VPA 313 Guatemala Improved Cookstoves Project
GS11212	GS1247 VPA 311 Guatemala Improved Cookstoves Project
GS3560	GS1247 VPA 36 Improved Kitchen Regimes - Dowa Boreholes, Malawi
GS5329	GS1247 VPA 91 Improved Kitchen Regimes Multi-Country PoA - Dowa and Kasungu Boreholes, Malawi
GS10800	GS1247 VPA 260 Improved Kitchen Regimes Multi-Country PoA - Dowa Boreholes, Malawi
GS7132	GS1247 VPA 159 Manica Province Safe Water (Mozambique)
GS7475	GS1247 VPA 203 Sierra Leone Safe Water
GS11079	GS1247 VPA 306 Togo Safe Water
GS10725	GS1247 VPA 246 Kaliro Safe Water
GS3443	GS1247 VPA 33 Kaliro Safe Water Project (GS3443)
GS6349	GS1247 VPA 139 Lango Safe Water
GS7671	GS1247 VPA 219 Central and Western Uganda Safe Water Project
GS1359	GS1247 VPA 2 Improved Kitchen Regimes: Kole District Borehole Project, Uganda (GS1359)
GS7456	GS1247 VPA190 Zambia Eastern Province Safe Water
GS6518	GS1247 VPA 142 Manicaland Safe Water

SECTION A. General description of PoA

A.1. Purpose and general description of the PoA

The purpose of this Micro-Scale Programme of Activities (mPoA) is to reduce Green House Gas (GHG) emissions from the burning of non-renewable biomass for cooking and water treatment. This mPoA will distribute energy efficient cook stoves and/or safe water supply and treatment technologies to households/communities.

Biomass, principally firewood and charcoal, holds huge importance in Developing Countries, and is the main source of household energy for some 2-3 billion people in

the Developing World, with this demand expected to continue growing. More than 1 billion people worldwide do not have access to safe drinking water and a high percentage of these boil their water to purify it for consumption, taking significant amounts of fuel and time.

High population densities coupled with high population growth rates, is putting increasing pressure on natural resources across the Developing World, which are being overexploited. The resulting situation is high and increasing levels of deforestation and environmental degradation.

In addition to the environmental consequences of such high wood use, there are also serious health implications. Biomass is often the predominant source of energy for cooking and water boiling, especially in rural areas, and is generally carried out on thermally inefficient traditional devices, which produce large amounts of smoke and indoor air pollution. It has been concluded that 'indoor air pollution is a major environmental and public health hazard for many of the world's poorest, most vulnerable people.'²

This mPoA will attempt to address issues such as these through the distribution of several different technologies, which will result in environmental, social and economic benefits, and significant contributions towards achieving Sustainable Development Goals (SDGs)³ (explored later):

- The distribution of improved cook stoves to households currently cooking on inefficient devices will reduce carbon emissions by allowing families to cook the same amount of food using less non-renewable biomass
- The distribution of household level point of use water treatment technologies to those lacking access to safe water will remove the need to boil water as a form of treatment before consumption, thus reducing carbon emissions.
- The installation and/or repair of community wide safe water supply technologies such as hand-pumped boreholes will also remove the need to treat water by boiling before consumption.

The efficient cook stoves and/or safe water supply and treatment technologies will be distributed to households/installed in communities for a nominal installation fee or through a subsidised sales model. By introducing a small fee, it is anticipated that

recipients will experience greater levels of ownership, value the technology more and therefore uptake, usage and continued interest in the project will be greater.

Users will enter into an agreement with CO2balance UK Ltd, transferring rights to the VERs generated by the PoA in return for the subsidised technology. The users must also agree to submit to the monitoring programme as described in this PoA Design Document (PoA-DD) and the relevant Voluntary Programme Activity Design Document (VPA-DD).

Forward Action Requests from CP1

- FAR 1: "The approach to communicate with the stakeholders in the local language with the help of an interpreter at the LSC level is accepted. PP shall ensure that the stakeholder consultations are conducted in the local language for all activities that are a part of the micro programme"

PP has applied this request across all LSCs under the PoA. The meeting have either been conducted in the local language completely, or in the local language with some parts translated from English to local language.

A.2. Physical/ Geographical boundary of the PoA

All micro-scale voluntary project activities (mVPAs) included in the PoA will be implemented within the geographic country borders of the following, along with current and future VPAs:

- Burkina Faso: 266-271, 287-300
- Eritrea: 28, 40, 45-8, 54-5, 84-5, 65-70, 84-5, 119-26, 129-130, 134-6 & 176-82
- Ethiopia: 86-90, 127-8, 149-50, 156, 165-6, 168-72 & 188-9
- Gambia: 224-30
- Guatemala 311-320
- Malawi: 24-7, 36-7, 91-104, 112-16 & 259-265
- Mozambique: 159-63, 198-202 & 245
- Sierra Leone: 203-12 & 231-240
- Togo: 272-281 & 301-310
- Uganda: 2-5, 33-5, 43-4, 49, 71-83, 139-41, 183-7, 219-223 & 246-255
- Zambia: 190-7

- Zimbabwe: 142-7, 213-218 & 241-244

A.3. Technologies/measures

Improved Cookstoves

Improved cookstove (ICS) VPAs provide energy efficient cookstoves, fuels or other technologies to households, business, institutions or other users in the countries included in the PoA, which are currently using non-renewable biomass, fossil fuels, or other greenhouse gas emitting fuels as an energy source. The Project Technologies will replace inefficient baseline cooking technology, such as three stone fires. The models and details of the improved cookstoves will be set out in the VPA-DDs where this is the relevant technology. The stove design will vary by VPA as different locations, climates, traditions and improvements in technology demand. This technology is eligible under GS4GG Community Services Activity Requirements s3.1.1(b): End-Use Energy Efficiency, and the project type, 'efficient cooking', is mentioned in the section.

One example of the ICS technology which may be included under the PoA is a design developed by CO2balance. The user-friendly design delivers high thermal efficiency and, where possible, is built from locally sourced materials. This technology performs at 21% thermal efficiency, thereby reducing the amount of biomass required in day-to-day cooking by approximately 70% as compared to the traditional three-stone, open fire method of cooking.



Figure 2: Efficient Stove Design

The improved stove has been designed to balance efficiency, safety, cost, stability and strength with a focus on using locally available materials. The key components of the stove are prefabricated in local factories and the rest of the components can be sourced and manufactured in the locality of the project. The stove consists of a metal case, ceramic liner, soft clay, husks, sand, cement, and metal pot support and grate. The exact stove construction details will be listed in a specification document which will accompany the specific VPA-DD for which that technology is used.

For VPAs using Technologies and Practices to Displace Decentralised Thermal Energy Consumption (TPDDTEC) methodology, if during a VPA roll out a stove with similar design and performance characteristics is introduced it can be included under the same project scenario. Improved cook stoves can be considered similar if they are based on the same fundamental combustion technology and their respective thermal efficiencies do not differ by more than +/-5%. Project technologies with significantly different performance characteristics are treated as independent project scenarios and hence monitored and credited separately (Manufacturing and Design Specifications will be included with the relevant VPA).

ICS VPAs may contribute to the following SDGs (specific SDG contributions will be determined on a VPA level):

- **SDG 3:** Reduction in exposure to indoor air pollution
- **SDG 5:** Reduction in time spent on unpaid chores by women and girls
- **SDG 7:** Distribution of improved technology
- **SDG 8:** Provision of work, training and sales opportunities
- **SDG 13:** Reduction in CO2 emissions
- **SDG 15:** Reduction in demand for firewood

Water Filters and Other Treatment Methods

Water filter and other treatment technology Projects will provide safe water treatment technologies to households in the host country currently boiling water as a purification method, or, using the concept of suppressed demand, members of the community that are not able to boil water due to the unavailability or expense of firewood. Other treatment technologies include, but are not limited to, chlorination.

These technologies are likely to treat water at the point of use. The technology chosen may vary by VPA as different locations, climates, traditions, and improvements in technology demand. The technology likely to be chosen is a household level water filter, similar to that shown in Figure 3 below.



Figure 3: Household Ceramic Filter

The ceramic filter shown above is made up of a clay filtering element, treated with colloidal silver which acts as a disinfectant. The filter removes odour, colour and turbidity, as well as killing bacteria and parasites from water that has come from an unsafe source. The filter is designed to meet the needs of a family of 5-6 people, with a filtering rate of 1-2.5 litres per hour.

The filter is certified and tested annually, and specifications and testing results for the exact technology will be included with the specific VPA-DD.

Water Filter VPAs may contribute to the following SDGs: (specific SDG contributions will be determined on a VPA level)

- **SDG 1:** Proportion of population with access to basic services
- **SDG 3:** Reduction in exposure to indoor air pollution or reduction in illnesses related to unsafe water
- **SDG 4:** Reduction in absences from school due to reduction in time spent by children on unpaid domestic duties
- **SDG 5:** Reduction in time spent on unpaid chores by women and girls
- **SDG 6:** Provision of access to clean water
- **SDG 7:** Number of beneficiaries with access to affordable and clean energy
- **SDG 13:** Reduction in CO2 emissions

- **SDG 15:** Reduction in demand for firewood

Safe Water Sources

The project will involve the provision of technologies that provide a safe water source to communities in the host country currently boiling water as a purification method, or, using the concept of suppressed demand, members of the community that are not able to boil water due to the unavailability or expense of firewood.

These technologies will provide a safe water provision to communities, so that it can be consumed from the source without the need for treatment first. The technology chosen may vary by VPA as different locations, climates, traditions and improvements in technology demand. The technology likely to be chosen is a zero-emission pumped borehole, with the pump similar to that shown in Figure 4 below. The project activity will involve the installation and/or repair of broken boreholes, and their maintenance over the lifetime of the project.



Figure 4: AfriDev Hand Pump

The pump pictured above draws water from depths of 3-45m and has a discharge rate of 16.5 litres per minute in 40 strokes. Full details of the exact technology will be included with the specific VPA-DD. The user numbers per technology will be limited by the volume of water that each water point is able to provide.

In addition to water filter and borehole technology safe water sources, other additional safe water technology may be included under the PoA, such as, but not limited to, solar powered desalination plants similar to those in Figure 5 below.



Figure 5: Solar powered desalination plant

Safe Water Source VPAs may contribute to the following SDGs: (specific SDG contributions will be determined on a VPA level)

- **SDG 1:** Proportion of population with access to basic services
- **SDG 3:** Reduction in exposure to indoor air pollution or reduction in illnesses related to unsafe water
- **SDG 4:** Reduction in absences from school due to reduction in time spent by children on unpaid domestic duties
- **SDG 5:** Reduction in time spent on unpaid chores by women and girls
- **SDG 6:** Provision of access to clean water
- **SDG 7:** Number of beneficiaries with access to affordable and clean energy
- **SDG 13:** Reduction in CO2 emissions
- **SDG 15:** Reduction in demand for firewood

A.4. Target/Indicator for each of the minimum three SDGs targeted by the PoA

SDGs assessment is conducted at VPA level and information is provided in the VPA-DDs.

A.5. Coordinating/managing entity

CO2balance UK Ltd. is the CME of the PoA. CO2balance UK Ltd. is the entity which communicates with the Gold Standard.

Local partner organisations and staff will be involved in the implementation of activities in some VPAs, therefore being participants in the PoA. These will be identified and indicated at the individual VPA level.

Project Implementer is defined as CO2balance UK Ltd. or a nominated organisation defined in each VPA-DD.

A.6. Funding sources of PoA

The Programme is currently intended to be funded by private funding from Project Implementer or its partners.

There is currently no public funding for the Programme. However, Project Implementer and its partners may apply for public funding for projects under the Programme. Details of any relevant public funding sources will be included on a VPA basis.

No ODA funding shall be used within the PoA, as confirmed by signed ODA Declarations to be made at the VPA level.

SECTION B. MANAGEMENT SYSTEM AND INCLUSION CRITERIA

B.1. Management System

The operational and management plan has been updated as the CP1 PoA focused on a specific improved cookstoves programme. The updated management system under CP2 PoA is more inclusive.

The Project Implementer will have overall operational and management responsibility for the implementation and monitoring of the proposed PoA and the VPAs belonging to it; and is therefore the PoA Managing Entity.

Operation and Management

Project Implementer will be responsible for the following operational and management activities related to each VPA under the PoA as listed below:

Manufacturing and Distribution

- a. It is hoped that all components for the improved cookstoves will be manufactured in the host country; however stove parts may be imported if a suitable supplier cannot be found. The stove technology may be changed if an improved product is developed or if a specific requirement is identified in a specific VPA; in this case stove performance figures will be provided and calculations amended accordingly.
- b. Safe water treatment technologies will be manufactured where possible in the host country, however they may be sourced from other locations if necessary. Project Implementer will work with partners, Community Based Organisations (CBOs) and/or NGOs responsible for borehole installation and maintenance in applicable areas in relation to safe water provision technologies.

VPA Project Area/Household Identification and Sensitisation

- a. For each VPA a process for identifying project areas and/or households will be managed by Project Implementer and their partners. This will involve working with relevant stakeholders to help identify project areas and/or households

suitable for stove sales and distribution and/or safe water supply and treatment technology project.

- b. In partnership with community leaders, NGOs and other local community organisations, Project Implementer will initiate a sensitisation procedure to ensure that households/recipients understand the benefits of the technology, cultural issues are addressed, and users are trained in the optimal use of the equipment. Sensitisation campaigns for each project type will be carried out as follows:
 - i. Improved Cookstoves – End-User training in line with the applicable Impact Quantification Methodology requirements.
 - ii. Safe Water Technologies - Hygiene campaign will be carried out in line with the applicable Impact Quantification Methodology requirements.

Data Collection

- a. Upon sale, distribution, rehabilitation or installation of each stove and/or safe water supply or treatment technology in the VPA, a representative or partner of Project Implementer will be responsible for collecting monitoring data. In line with the applied Methodology, this will include:
 - 1. Date of sale/installation/distribution/rehabilitation
 - 2. Geographic area of sale/installation/distribution/rehabilitation
 - 3. Model/type of project technology sold / installed / distributed / rehabilitated
 - 4. Quantity of project technology sold / installed / distributed / rehabilitated
 - 5. Name and telephone number (if available), and address:
 - i. For all bulk purchasers i.e. retailers and industrial users
 - ii. All end users except in cases where this is justified as not feasible (such as cases of distributed sales of small items, including portable cook stoves and water filters, sold in market stalls or shops where the retailer cannot reasonably be expected to collect customers names and addresses during busy times. In such cases the number of names/telephone numbers/addresses collected will be as many as commensurate with representative sampling.
 - 6. Mode of use: domestic, commercial, other:

- i. At a minimum as many as commensurate with representative sampling.
- ii. This data will be collected and form the Project Database

Monitoring

- a. The ongoing monitoring of the performance of the stoves and/or safe water supply or treatment technology in each VPA will be the responsibility of Project Implementer and/or partner organisations.
- b. A sampled group of project technologies will be assessed in line with the Methodology monitoring requirements. Sampling will be carried out as described in Section B.3.
- c. Monitoring Reports will be written for each VPA or group of homogenous VPAs in each verification period.

This PoA will contain numerous VPAs covering different technologies and having different monitoring periods.

Homogenous VPAs, defined as those that share a common baseline and project technology, may apply cross sampling of technologies across during the monitoring period; or may apply VPA sampling if deemed more suitable.

The Monitoring Plan will be described in detail in each VPA-DD, which will also include a Sampling Plan for each survey. Each project type will follow a general pattern tailored to the demands of the individual project.

Calculation of User Numbers

Projects apply TPDDTEC or GS Methodology for Emission Reductions from Safe Drinking Water Supply will measure user numbers for CWT and CWS projects by one of the following methods:

1. Cap based on Gold Standard Grievance (BAMG) Report;
2. Cap based on field tests, conservative assumptions and other sources; or
3. Cap based on data collected by sensor or meter.

Handpumps

VPAs under this POA can implement 1 of 3 options for monitoring and applying user number caps. VPAs reserve the right to apply different options in different monitoring periods, for example if new data or techniques become available within the project.

1. Cap based on Gold Standard Grievance (BAMG) Report of 300 users per pump:

User lists will still be collected, and the figure will be capped at 300 per tap. Any user lists under 300 will apply the monitored user list value. If using this option, Treatment Capacity calculations are not required.

2. Cap based on field tests, conservative assumptions and other sources:

A referenced average daily output cap for each technology (for a borehole this is assumed at 6,000 L/day^{4,5,6}) will be applied. To support this assumption, further data from the field such as pump efficiency, pump yield, or operational hours may be collected to verify that 6000L/day output is achievable for each pump.

This figure is then divided by the monitored total water consumed from the technology per person per day. A self-imposed minimum cap of 12 L/pp/day monitored total water consumption from the technology will be applied in order to maintain conservativeness. This calculates the maximum number of people that can be served by the technology.

This 12 L/pp/day capped value applies only to Treatment Capacity calculations and shall not be used as a value, or reference value, for any other purposes.

User cap (pp) = Total output of technology per day (L/d) / Total water consumption per day per person (L/d/pp)

User lists will still be collected, and the figure capped at the calculated user cap. Any user lists under the calculated cap will apply the monitored user list value.

If field data suggests that a yield of 6,000 L/day is not achievable for a specific water source, a cap of 300 users (in line with Option 1) will be applied for the specific water source. Output of 6000L/day is defined as achievable when pump efficiency is greater 10 L/min (600 L/hour)^{7,8}.

Pump efficiency can be used to determine operational hours required for each pump to be in use per day to deliver the 6000L/day output. This will provide a

verifiable hours of use (or % hour usage) that can be audited through an OO or DOE site visit process.

3. Cap based on data collected by meters or sensors:

Meters or sensors will be installed on a minimum 90/10 sample of technologies across a project (homogenous VPAs may be cross sampled).

Flow meters would measure water volume directly and can be observed over a specific time period to determine operation time. Sensors would measure operation time or pump stroke count directly. Volume is calculated as capacity multiplied by operation time or pump strokes, depending on sensor type.

Output per technology per day would then be divided by the monitored total water consumed from the technology per person per day. A self-imposed minimum cap of 12 L/pp/day monitored total water consumption from the technology will be applied in order to maintain conservativeness. This calculates the maximum number of people that can be served by the technology.

This 12 L/pp/day capped value applies only to Treatment Capacity calculations and shall not be used as a value, or reference value, for any other purposes.

User cap (pp) = Total output of technology per day (L/d) / Total water consumption per day per person (L/d/pp)

User lists will still be collected, and the figure capped at the calculated user cap. Any user lists under the calculated cap will apply the monitored user list value.

Protected Springs: Direct User Monitoring

Biennial verification of user numbers through directly monitoring water collection from protected springs. A minimum of a 90/10 sample of protected springs will be visited by field staff/data collectors. The number of users at each protected spring distribution point will be monitored over the course of three consecutive days.

Each user will be asked for their name, number of litres collected (estimate if not clear), and the number of people in their household that the water will serve. Every spring shall be monitored biennially, with first monitoring activity taking place prior to first verification. The data collected will be used to gain an average number of users per protected spring which will be compared to the user list database. If the monitored number of users is found to be lower than the user list database then a corresponding adjustment shall be made to the number of users claimed in emission reduction calculations provided for verification, and thus total project technology days claimed.

The following monitored parameters will be included in the Appendices for VPAs:

Data / Parameter	Output per Technology Per Day
Unit	Litres
Description	Total litres output per project technology per day
Source of data	Option 2: Literature sources Option 3: Meter or sensor data
Value(s) applied	Value to be provided for each verification
Measurement methods and procedures	Option 2: Value derived from literature sources Option 3: Data to be collected through meters or sensors installed on a sample of technologies within the project
Monitoring frequency	Annual
QA/QC procedures	Option 2: Figures to be sense checked with supporting field data such as pump efficiency, pump yield, pump operational hours Option 3: Data to be sense checked with literature values
Purpose of data	User number cap: To measure the total volume of water supplied per technology per day to calculate the total number of persons that can be served by each technology
Additional comment	-

Data / Parameter	Total Water Consumed per person per day
Unit	Litres
Description	Total Water Consumed per person per day
Source of data	Usage Survey or WCFT
Value(s) applied	Value to be provided for each verification. Minimum cap of 12L/pp/day to be applied
Measurement methods and procedures	Annual usage survey, or biennial WCFT will be carried out by staff trained by CO2balance to meet the specific requirements of the methodology. Sample sizes will be determined in line with methodology requirements.

Monitoring frequency	Annual
QA/QC procedures	Clear guidance is provided to field staff and results are spot checked and analysed for accuracy
Purpose of data	User number cap: To measure total water consumed per technology per day to calculate total number of persons that can be served by each technology
Additional comment	Data collected in usage survey will account for seasonal variety

Data / Parameter	Spring Users
Unit	Number of people per day served
Description	The number of people consuming water from a protected spring per day
Source of data	Direct measurement of user numbers at protected spring distribution point(s)
Value(s) applied	Value will be provided in time for first verification and updated biennially
Measurement methods and procedures	In situ monitoring carried out by staff trained by CO2balance
Monitoring frequency	Biennial
QA/QC procedures	Clear guidance is provided to field staff and results are spot checked and analysed for accuracy
Purpose of data	Results will be compared to user lists for each spring Verification of user numbers claimed in emissions reductions
Additional comment	Applies to protected springs only

B.2. Application of methodologies

The PoA will apply the following GS methodologies. Under the PoA’s first Crediting Period, TPDDTEC v1 was applicable. Existing VPAs under the PoA will continue to apply the methodology used in CP1 of the project until that VPA’s Crediting Period is renewed, at which point the latest version of the relevant methodology will be applied..

Technology	Methodology
Improved Cookstoves	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
	GS Simplified Methodology for Efficient Cookstoves

	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v4.0 (or latest version)
Water Filters	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
	GS Methodology for Emission Reductions from Safe Drinking Water Supply v1.0 (or latest version)
Safe Water Sources	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
	GS Methodology for Emission Reductions from Safe Drinking Water Supply v1.0 (or latest version)

These methodologies are applicable to programmes or activities introducing technologies that reduce or displace greenhouse gas (GHG) emissions from the thermal energy consumption of households. Examples of these technologies include the introduction of improved biomass or fossil fuel cook stoves and safe water supply and treatment technologies that displace water boiling by introducing new zero emission technologies.

The following conditions in Section 1.0 'Source and Applicability' of TPDDTEC v3.1 are met:

Methodology Requirement	Project
1. 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. Project proponents must therefore have a survey mechanism in place together with appropriate mitigation measures so as to	The project boundary is the physical, geographical sites of the project technologies and potentially of the baseline and project fuel collection. The individual households where the project technologies will be installed, and/or communities where the boreholes are situated, are within the target area, which have been clearly demarcated using administrative boundaries. The technologies counted are given a unique identification number which is stored in

<p>prevent any possibility of double counting.</p>	<p>the project database. This ensures that the technologies are not counted in other project activities.</p>
<p>2. 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.</p>	<p>The stove project technology primarily delivers thermal energy, whilst the water technology displaces thermal energy supplied in the baseline. Therefore, the 150kW threshold applies differently to the two technologies.</p> <p>Stoves: Calculations will be included with each VPA-DD to demonstrate that the applicable technology has a continuous useful energy output of less than 150kW per unit</p> <p>Safe Water Technology: Calculations will be included with each VPA-DD to demonstrate that the displaced baseline technology has a continuous useful energy output of less than 150kW.</p>
<p>3. 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.</p>	<p>As referenced in the methodology 'the removal and continued non-use of three stone fires and other easily constructed traditional devices (the baseline technology replaced by this project activity) is in many cases unlikely and impractical to monitor'.</p> <p>However, the mechanism introduced to encourage the cessation of use of baseline technology is educating local people on the extensive health and environmental benefits of abandoning inefficient baseline technology entirely.</p>

	<p>The same method of educating users about water technology will be adopted, whereby the extensive benefits will be fully explained.</p>
<p>a) 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. For example, whether the existing baseline technology is not surrendered at the time of the introduction of the improved technology, or whether a new baseline technology is acquired and put to use by targeted end users during the project crediting period</p>	<p>Overall use of the baseline technology will be monitored in conjunction with that of the project technology, as will the emergence of any other baseline technology by targeted end users.</p>
<p>b) The success of the mechanism put into place must therefore be monitored, and the approach must be adjusted if proven unsuccessful. If an old technology remains in use in parallel with the improved technology, the corresponding emissions must be accounted for as part of the project emissions</p>	<p>Parallel baseline technology use (three stone fires or traditional equivalent for either cooking or water boiling) will be revealed during monitoring and its effect on emissions reductions will be captured in line with equations provided in the Methodology:</p> <p>Stoves: $B_{p,y} = N_{p,y} * ((P_{p,y} * U_{p,y}) + (P_{b,y} * (1 - U_{p,y})))$</p> <p>Safe Water Technologies: $B_{p,y} = (1-C_j) * N_{p,y} * W_{b,y} * (Q_{p,rawboil,y} + Q_{p,cleanboil,y})$</p> <p>The uptake rate U will be determined by usage surveys and hence used to</p>

	account for parallel baseline and project technology use.
4. 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. For technology producers and the retailers of the improved technology or the renewable fuel in use, this must be communicated by contract or clear written assertions in the transaction paperwork. If the claimants are not the project technology end users, the end users will need to be informed and notified that they cannot claim for emission reductions from the project6 .	A full explanation will be given to all household stove and/or water technology recipients, or end users, that Project Implementer distributed the technology on the basis that the emissions reductions will be transferred to CO2balance (or another entity set out in the relevant VPA-DD).
5. Project activities making use of a new biomass feedstock in the project situation (e.g. shift from non-renewable to green charcoal, plant oil or renewable biomass briquettes) must comply with relevant Gold Standard specific requirements for biomass related project activities, as defined in the latest version of the Gold Standard rules. If the biomass feedstock is sourced from a dedicated plantation, the criteria must apply to both plantations established for the project activity AND existing plantations that were established in the context of other activities but will supply biomass feedstock.	The emission reductions from this project, for both stove and water technologies, will result from a change in quantity of fuel consumed, rather than change of fuel type, therefore this condition is not applicable.
a) Adequate evidence is supplied to demonstrate that indoor air pollution	The fuel used in both the project and baseline scenario is the same, as such

<p>(IAP) levels are not worsened compared to the baseline, and greenhouse gases (as listed in section 2.1) emitted by the project fuel/stove combination are estimated with adequate precision⁸ . The project fuel/stove combination may include instances in which the project stove is a baseline stove.</p>	<p>there are no additional harmful gases released in the project scenario.</p> <p>Stoves: Distributed in households that previously used a traditional inefficient device. As such, both the volume of greenhouse gases and volume of harmful gases are reduced in the project scenario.</p> <p>Safe Water Technologies: Result in reduced boiling of water, hence also a reduction in both the volume of greenhouse gases and volume of harmful gases.</p>
<p>b) 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 2.0 of this methodology. These records need to be correlated to data on distribution⁹ 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 of CO levels not deteriorating (d) any further factors effecting emission reductions significantly.</p>	<p>The emission reduction calculation will be based on fuel wood usage measurements for both cook stoves and water technologies (Kitchen Performance Tests and Wb,y Tests). Fuel sales will not be monitored or used in any equations in this project.</p>

The following conditions in Section 1.0 'Source and Applicability' of GS Simplified Cookstove Methodology v.1.1 are met:

Methodology Requirement	Project
<p>This methodology is applicable,</p> <ul style="list-style-type: none"> i. If the baseline fuel is only fire wood ii. If the baseline stove is a three stone fire, or a conventional device without a grate or a chimney i.e. with no improved combustion of air supply or flue gas ventilation; and iii. If the project stove is single pot or multi pot portable or in-situ cook stoves with specified efficiency of at least 20% 	<p>Projects applying the Simplified Cookstove Methodology will assess:</p> <ul style="list-style-type: none"> i. baseline fuel use being replaced; and ii. baseline stove use being replaced by means of a baseline survey carried out in the Project Area and iii. Project stove efficiency by means of a WBT carried out on the project stove <p>Information and evidence will provided in each VPA-DD to demonstrate compliance with the conditions</p>
<p>2. The project boundary can be clearly identified, and the cookstoves counted in the proposed project activity are not included in another voluntary market or CDM project activity (i.e. no double counting takes place). The project proponent must have a mechanism in place together with appropriate mitigation measures to prevent double counting.</p>	<p>The project boundary is the physical, geographical sites of the project technologies and potentially of the baseline and project fuel collection. The individual households where the project technologies will be installed, and/or distributed, are within the target area, which have been clearly demarcated using administrative boundaries.</p> <p>The technologies counted are given a unique identification number which is stored in the project database. This ensures that the technologies are not counted in other project activities.</p>
<p>3. The project proponent must clearly communicate that the entity is claiming ownership rights and selling of the emission reductions resulting from the</p>	<p>A full explanation will be given to all household stove recipients, or end users, that Project Implementer distributed the technology on the basis that the</p>

<p>project activity. This must be communicated to the efficient cookstoves producers, retailers and end users by contract or clear written assertions in the transaction paperwork</p> <p>For example, leaflets distributed with the products alerting end-users to the waiving of their carbon rights in exchange for pricing of the improved cookstove which discounts its true cost (waiver forms signed by end users are another example)</p>	<p>emissions reductions will be transferred to CO2balance (or another entity set out in the relevant VPA-DD).</p> <p>Means of communication will be set out in relevant VPA-DD</p>
<p>4. 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.</p>	<p>As referenced in the methodology 'the removal and continued non-use of three stone fires and other easily constructed traditional devices (the baseline technology replaced by this project activity) is in many cases unlikely and impractical to monitor'.</p> <p>However, the mechanism introduced to encourage the cessation of use of baseline technology is educating local people on the extensive health and environmental benefits of abandoning inefficient baseline technology entirely.</p> <p>Other mechanisms such as guarantees on project technology may also be implemented</p>
<p>a) The project documentation must provide a clear description of the approach chosen and the monitoring</p>	<p>Overall use of the baseline technology will be monitored in conjunction with that of the project technology, as will</p>

<p>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. For example, whether the existing baseline technology is not surrendered at the time of the introduction of the improved technology, or whether a new baseline technology is acquired and put to use by targeted end users during the project crediting period</p>	<p>the emergence of any other baseline technology by targeted end users.</p>
<p>b) The success of the mechanism put into place must therefore be monitored, and the approach must be adjusted if proven unsuccessful. If an old technology remains in use in parallel with the improved technology, the corresponding emissions must be accounted for as part of the project emissions</p>	<p>Parallel baseline technology use will be revealed during monitoring and its effect on emissions reductions will be captured.</p> <p>The uptake rate U will be determined by usage surveys and hence used to account for parallel baseline and project technology use.</p>

The following conditions in Section 2.0 'Scope, Applicability, and Entry into Force' of GS Methodology for Emission Reductions from Safe Drinking Water Supply v1.0 are met:

<p>Methodology Requirement</p>	<p>Project</p>
<p>2.1.1 This methodology is applicable to project activities that introduce a new, or rehabilitate an existing, zero-emission or low-emission technology to supply safe drinking water.</p>	<p>Eligible technologies are set out in section A.3 and detailed in the VPA-DDs.</p>
<p>2.1.2 Technologies include household water treatment technologies (HWT), Institutional water treatment technologies (IWT), Community level</p>	<p>The VPAs will apply the relevant calculation methods.</p>

<p>water treatment technologies (CWT) and community water supply technologies (CWS). The methodology provides two sets of calculation methods and monitoring requirements, one set that applies to the HWT and IWT types of technologies, and another set that applies to the CWT and CWS types of technologies.</p>	
<p>2.1.3 Under this Methodology, a project’s objectives are to reduce or avoid greenhouse gas emissions from boiling unsafe drinking water in the baseline, and to supply drinking water that is safe for consumption when it enters the project households or institutional premises. When the drinking water is treated in the household or institution (HWT or IWT), then the water supplied from the treatment technology should be safe. When the water is supplied or retrieved from a CWT or CWS directly to the premises of the household or institution, then the water entering the end-user premises should be safe.</p>	<p>The Projects under this PoA align with these objectives, and water quality testing in line with the methodology will ensure this.</p>
<p>2.2.1.a. Eligible household water treatment technologies (HWT), institutional water treatment technologies (IWT), and community level water treatment technologies (CWT) include bleach/chlorine, water filter (ceramic, sand, composite, membrane, etc.), UV disinfection, etc.</p>	<p>Eligible technologies are set out in section A.3 and detailed in the VPA-DDs.</p>
<p>2.2.1. b. Eligible community water supply technologies (CWS) include new</p>	<p>Eligible technologies are set out in section A.3 and detailed in the VPA-DDs.</p>

<p>installation of new borehole hand-pumps, borehole hand-pumps rehabilitation, solar powered drinking water pumps, etc. Water pumps powered by fossil-fuel engines are not eligible, with the exception of backup fossil-fuel engines that are used for no more than 10% of operating hours (parameter SWDS 33).</p>	
<p>2.2.1.c. All projects involving CWT and CWS technologies must also include ongoing maintenance and repair of the project technology.</p>	<p>All Projects include ongoing maintenance and repair programmes to ensure that safe water is provided throughout the Project.</p>
<p>2.2.1.d. Where the project involves the rehabilitation of an existing technology, the project developer shall provide evidence that the existing technology is non-operational and that there is no planned maintenance or repair for at least 3 months after the date it became non-operational (parameter SWDS 2).</p>	<p>Such Projects will provide evidence of this, most likely in the form of an official letter.</p>
<p>2.2.1.e. This methodology allows for project activities to include safe water treatment and/or supply technologies implemented for end-users in households, and/or commercial premises such as shops or institutional premises including half or full day/boarding schools, prisons, army camps & refugee camps.</p>	<p>Relevant Projects will state this in the VPA-DD and apply the relevant calculations.</p>
<p>2.2.1.f. In cases where the safe water is retrieved at the CWT or CWS location, the water in its improved form shall be available within a distance of 1 km or less from the end-users, as</p>	<p>CWT and CWS Projects will record the GPS coordinates of the Project Technology and record the distances of the beneficiaries from the Technology.</p>

<p>demonstrated by satellite imaging or GPS coordinates of each CWT or CWS location. Alternatively, as a proxy, a total collection time of 30 minutes or less for a round trip, including queuing, using the travel modes of walking or pedaling may be demonstrated (parameter SDWS 1).</p>	
<p>2.2.1.g. Project technology performance level (HWT and IWT): It shall be demonstrated based on report of laboratory testing or official notification that the project technology or equipment achieves either (i) the performance target classification 3-star or 2-star level, meaning “Comprehensive Protection,” as per the WHO International Scheme to Evaluate Household Water Treatment Technologies (World Health Organization, 2011) or (ii) compliance with the national standard or guideline for household drinking water treatment technology; if no national guideline or standard is available, then the project technology shall comply with the WHO International Scheme requirements as per (i) (parameter SDWS 2).</p>	<p>HWT and IWT Projects will follow the WQT requirements set out in the Methodology.</p>
<p>2.2.1.h. Project technology performance level (CWT and CWS): For each individual CWT or CWS, it shall be demonstrated at the start of each crediting period with water quality testing reports that the water directly supplied by the project water</p>	<p>CWT and CWS Projects will follow the WQT requirements set out in the Methodology</p>

<p>technology/source achieves both: i. microbial quality in line with either (i) national standards or guidelines for microbial quality of drinking water, or in the absence of such requirements, (ii) the guideline values for verification of microbial quality from the Guidelines for drinking-water quality (Table 7.10, WHO, 2017); and ii. compliance with (i) national standards or guidelines on priority chemical contamination and physical and aesthetic aspects, or in the absence of such requirements, (ii) international standards or guidelines on priority chemical contamination¹¹ and physical and aesthetic aspects. (parameter SWDS 3).</p>	
<p>2.2.1.i. The project must conduct annual water hygiene education campaigns for the end-users. (parameter SDWS 20).</p>	<p>The details of the water hygiene education campaigns for the end-users will be set out in the VPA-DD and reported for each MP.</p>
<p>2.2.1.j. A project applying this methodology may make SDG claims if relevant monitoring parameter(s) is included in the monitoring plan to demonstrate and confirm the project’s contributions to SDGs. See parameter SDWS 19.</p>	<p>SDG claims are set out in the VPA-DDs.</p>
<p>2.3.1 Project shall document the national, regional and local regulatory framework for provision of safe drinking water in the project boundary (parameter SDWS 4). The project shall not undermine or conflict with any national, sub-national and local</p>	<p>Adherence to the relevant regulatory frameworks are set out in the VPA-DDs.</p>

<p>regulations or guidance for safe drinking water supply, operation and maintenance, including any tariff requirements.</p>	
<p>2.3.2 If the expected technical life of project technology (parameter SDWS 7) is shorter than the crediting period, describe measures to ensure that end users are provided replacement systems of comparable quality at the end of the expected technical life (for example, replace with comparable or better technology, retrofit with performance guarantee, etc.). This applies both for new technology and rehabilitated.</p>	<p>Technical life of the Project Technologies are set out in the VPA-DDs.</p>
<p>2.3.3 All CWT and CWS projects must include ongoing maintenance and repair of the project technology. The PDD must describe the maintenance and repair plan, including the system for logging/documenting of technology operation and maintenance events including periods of downtime. The log of operation and maintenance shall be required during the monitoring period to demonstrate project technology operation.</p>	<p>All Projects include ongoing maintenance and repair programmes to ensure that safe water is provided throughout the Project. Such work is recorded and reported at Verification.</p>

The following conditions in Section 2.0 'Source and Applicability' of TPDDTEC V4.0 are met:

Methodology Requirements	Project
<p>2.1.1 This methodology is applicable to project activities that introduce technologies and/or practices that reduce or displace greenhouse gas</p>	<p>Eligible technologies are set out in section A.3 and detailed in the VPA-DDs.</p>

<p>(GHG) emissions from the thermal energy consumption of households and/or residential, institutional, industrial, or commercial facilities.</p>	
<p>2.1.2 Where there is no installation of improved devices and project claims emission reductions from improved practices only, project shall provide a detailed discussion of the chosen monitoring approach to demonstrate that quantified emission reductions result exclusively from the practices introduced by the project activity.</p>	<p>The VPAs will apply the relevant calculation methods.</p>
<p>2.1.3 Project may involve progressive distribution of technology where implementation of the technology may occur in a gradual manner and adoption can increase over the project’s crediting period.</p>	<p>The projects under this PoA that carry out this practice will clearly document this process.</p>
<p>2.2.1.a. Project shall choose a technology design that has predictable performance in that it is proven to be efficient and durable under field conditions; for cookstoves, the rated thermal efficiency shall be at least 20%</p>	<p>Eligible technologies are set out in section A.3 and detailed in the VPA-DDs.</p>
<p>2.2.1.b. The technology shall have continuous useful energy output of less than 150kW per unit, where “continuous useful energy output” is defined (see Parameter ICS 2).</p>	<p>Calculations will be included with each VPA-DD to demonstrate that the applicable technology has a continuous useful energy output of less than 150kW per unit.</p>
<p>2.2.1.c. The project activity is implemented by a project developer and can include additional project participants listed in Appendix 2 of the PDD template. The individual households</p>	<p>Relevant projects may represent these additional project participants as a list in Appendix 2.</p>

<p>and institutions may be represented collectively by community organizations, etc., but do not individually act as project participants.</p>	
<p>2.2.1.d. The project developer must design incentive mechanism(s), which should be effective as fast as possible, for the elimination of inefficient baseline stoves that are replaced by the project cooking devices and describe the incentive mechanism(s) in the PDD/VPA-DD at the time of validation.</p>	<p>Projects will provide evidence of this and will describe these mechanisms within the PDD/VPA-DD at the time of validation.</p>
<p>2.2.1.e. To avoid double counting or double claiming, the project developer must:</p> <p>i. clearly communicate its ownership rights and intention of claiming the emission reductions resulting from the project activity to the following parties by contract or clear written assertions in the transaction paperwork: all other project participants; project technology manufacturers; and retailers of the project technology or the renewable fuel in use.</p>	<p>The ownership of the carbon rights is claimed through the signing of a Carbon Transfer Form. An explanation of this transfer of ownership is detailed on the CTF.</p>
<p>ii. inform and notify the end users that they cannot claim emission reductions from the project.</p>	<p>The ownership of the carbon rights is claimed through the signing of a Carbon Transfer Form. An explanation of this transfer of ownership is detailed on the CTF.</p>
<p>iii. exclude from the project activity, cooking devices included in any other voluntary market or CDM project activity/PoA, and strive not to displace</p>	<p>Carbon Transfer Forms will only be signed alongside stoves which are distributed as part of the project. Each VPA included under this PoA will not be</p>

<p>the cooking devices of another CDM or voluntary project/PoA.</p>	<p>included by any other carbon standard/registry.</p>
<p>2.2.1.f. Project activities making use of solid fossil fuel in the project scenario or other improved fossil fuel cookstoves meeting certain conditions described in the footnote to Table 1 (e.g. switch from three-stone fire biomass stoves to LPG stoves) may only claim emission reductions for energy efficiency improvement aspect and shall assume the same baseline and project fuel for emission reduction calculations.</p>	<p>Relevant Projects will state this in the VPA-DD and apply the relevant calculations.</p>
<p>2.2.1.g. Project activities making use of a new solid biomass feedstock in the project situation (e.g. switch to green charcoal or renewable biomass briquettes) must comply with relevant specific requirements for biomass related project activities, as defined in the latest version of the Community Services Activity Requirements. The specific requirements apply to both plantations established for the project activity and/or existing plantations that will supply biomass feedstock.</p>	<p>Relevant projects will state this in the VPA-DD and will comply with relevant requirements for biomass related project activities.</p>
<p>2.2.1.h. Adequate evidence is supplied to demonstrate that indoor air pollution (IAP) levels are not worsened compared to the baseline, and greenhouse gases emitted by the project fuel/stove combination are estimated with adequate precision² . Furthermore, for projects where cooking will move from outdoor to indoor or where the project</p>	<p>Adherence to this requirement will be outlined at VPA level for each project.</p>

<p>technology reduces ventilation (for example, changing from a stove with chimney to improved stove with no chimney), indoor air pollution (IAP) levels shall not worsen in the project compared to the baseline, including PM 2.5 and carbon monoxide (CO) emissions. This may be demonstrated before project Design Certification or during project operation using the certification resulting from of a manufacturer’s test, report of field testing of the technology’s PM 2.5 and carbon monoxide (CO) emissions, report of lab testing of the technology, or results of modelling of the technology’s operation under field conditions. If none of these are available, reference from published literature or report by independent agencies may be used as evidence, provided it is not more than 5 years old.</p>	
<p>2.3.1 The project shall not undermine or conflict with any national, sub-national or local regulations or guidance for thermal energy supply or fuel supply or use. The project shall document the national, regional and local regulatory framework for provision of thermal energy services of the type the project provides in the project boundary (parameter ICS 7).</p>	<p>Projects will follow the requirements set out in the Methodology and align with any national, sub-national or local regulations or guidance for thermal energy supply or fuel supply or use.</p>
<p>2.3.2 If the expected technical life of project technology (parameter ICS 3) is shorter than the crediting period, the</p>	<p>In such instances, measures will be described in the VPA-DD on how the project technology lifetime will be</p>

<p>project developer shall describe measures to ensure that end users are provided replacement technology of comparable quality at the end of the technical life, by either replacing with comparable or better technology, or retrofitting essential parts with performance guarantee. If neither of the prior conditions can be demonstrated, no emission reductions can be claimed for the technology after its technical life has ended.</p>	<p>extended whilst ensuring performance is not reduced.</p>
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B.2.1. Multiple technologies/measures

The PoA will apply the following GS methodologies:

Technology	Methodology
Improved Cookstoves	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
	GS Simplified Methodology for Efficient Cookstoves
	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v4.0 (or latest version)
Water Filters	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
	GS Methodology for Emission Reductions from Safe Drinking Water Supply v1.0 (or latest version)
Safe Water Sources	GS Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC) v3.1
	GS Methodology for Emission Reductions from Safe Drinking Water Supply v1.0 (or latest version)

B.3. Eligibility criteria for inclusion of a VPA in the PoA

ELIGIBILITY CRITERION	DESCRIPTION/ REQUIRED CONDITION	MEANS OF VERIFICATION/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.	<p>Projects will involve the distribution of improved cookstoves or the distribution/installation/rehabilitation of safe water sources or treatment technologies.</p> <p>Project types are eligible under Community Services Activity Requirements v1.2 Sections 3.1.1(b) and 3.1.1(d).</p>
2 Location of Project	The host country and location of each VPA will be specified in each VPA-DD, in line with the locations outlined in Section A.2.	This will be clearly stated in each VPA-DD.

3	Project Area, Project Boundary and Scale	<p>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.</p> <p>In order to avoid double counting the Project shall 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).</p>	<p>Each VPA will state the location of the Project and provide a range of GPS coordinates and maps to define the Project boundary.</p> <p>Each micro-scale VPA included under this PoA will not be included by any other carbon standard and will not exceed the 10,000 VERs per year cap.</p>
4	Host Country Requirements	<p>Projects shall be in compliance with applicable Host Country’s legal, environmental, ecological and social regulations.</p>	<p>Each VPA will be in compliance with these regulations.</p>

5	Contact Details	<p>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 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.</p>	<p>The details of the Project Developer will be included in each VPA-DD.</p>
6	Legal Ownership	<p>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.</p>	<p>Means of demonstration of legal ownership of Products generated under the Programme will be specified in each VPA-DD. Demonstration of legal ownership will be in line with Community Services Activity Requirements v1.2 Section 3.1.4.</p>

7	Other Rights	<p>As well as legal title and ownership, the Project Developer shall also demonstrate where required uncontested 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.</p>	<p>This will be demonstrated where applicable in the relevant VPA-DDs.</p>
8	<p>Official Development Assistance (ODA) Declaration</p>	<p>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.</p>	<p>A declaration confirming that there is no diversion of ODA for each VPA will be attached with the PoA-DD and individual VPA-DDs.</p>

Criteria demanded from PoA Re-Validation Review		
(i) Factor of Non-Renewable Biomass	Reference from where fNRB shall be calculated for VPAs shall be included in the eligibility criteria to avoid confusion at the time of VPA inclusion and for consistency	. fNRB calculations and values will be determined at VPA level in compliance with the applicable methodology requirements, using either a valid default value, referenced methodology tool, or method from the latest version of methodology available at the time of VPA inclusion
(j) Test for Wb,y parameter	The test for fixed parameter Wb,y is based on the water boiling test.	The test for the Wb,y fixed parameter will be conducted following the established test set out in the 'GS1247 Annex IV - Wb,y Test Guidelines' document.
(k) Water Project Treatment Capacity	The treatment capacity limits of project technology/source are required to be monitored to ensure that the water consumption level applied for emission reductions must not be greater than the treatment capacity of the project technology/sources.	Each VPA will ensure that consumption levels are not greater than the treatment capacity of the project technology/source.
(l) Cookstove Project Theoretical Savings	<p>The theoretical wood savings from a cook stove project shall be estimated based on following-</p> $P_y = B_{b,y} * (1 - h_b / h_{p,y})$ <p>Py - quantity of firewood consumed in project Bb,y - quantity of firewood consumed in baseline hb – efficiency of baseline technology</p>	Cookstove projects will provide theoretical estimates based on the calculation.

	hp,y – efficiency of project technology	
(j) Double Counting	Conditions to confirm that VPAs are neither registered as CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered.	PP will confirm that VPAs are not registered anywhere else.
(k) Technical Specification	Specification of the technology/measure, such as the level and type of service, as well as performance specification based on, inter alia, testing/certification.	VPA-DDs will include technical specifications of the Project Technology.
(l) Start Dates	Conditions to check the start dates of VPAs through documentary evidence.	The start date of projects will be confirmed by carbon transfer forms, repair confirmation forms, or other suitable methods depending on the project type and circumstances.
(m) Applicability	Conditions to ensure compliance with the applicability of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents.	This will be set out in each VPA-DD.
(n) Additionality	Conditions to ensure that VPAs meet the requirements for	This will be set out in each VPA-DD.

	demonstration of additionality.	
(o) LSC and EIA	Conditions related to undertaking local stakeholder consultation and environmental impact analysis.	This will be set out in each VPA-DD.
(p) Target Group	Target group (e.g. domestic/commercial/industrial, rural/urban, grid-connected/offgrid), and where applicable, distribution mechanisms (e.g. direct installation).	This will be set out in each VPA-DD.
(q) Sampling	Sampling approaches are set out in each VPA and will follow the TPDDTEC v3.1 methodology.	Sampling approaches will be in compliance with the applicable methodology requirements and outlined at VPA-level in VPA-DDs.
(r) Crediting Period	All VPAs submitted for inclusion after the first crediting cycle of such PoA and completion of transition to GS4GG shall follow the GS4GG Certification Cycle (i.e. 5 years renewals).	The crediting period will be stated in each VPA-DD.
(s) Prior Consideration	Demonstration of prior consideration of revenues from Gold Standard certification are required in the following circumstances:	Evidence of start date for technology implementation will be provided at a VPA level in line with prior consideration requirements. The start date of projects will be confirmed by carbon

	<p>(a) Regular projects are exempt from any kind of prior consideration of revenues from Gold Standard certification checks</p> <p>(b) Retroactive projects shall submit the required documents for preliminary review (time of first submission) within one year of the project start date.</p> <p>(c) The prior consideration rule is also applicable to a Project that undergoes a design change. A project with a Certified Design requesting to include a new technology/measures shall submit the request for approval of design change to Gold Standard within one year of the start date of the proposed technology/measures (design change component).</p>	<p>transfer forms, repair confirmation forms, or other suitable methods depending on the project type and circumstances.</p> <p>Credits generated more than one year before time of first submission (for registration or design change) will not be eligible for Gold Standard certification.</p>
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Community Services Activity Requirements	
Requirements relevant to this VPA.	Demonstration of meeting Requirements
1.1 Eligible Project Types and Scope	
<p>1.1.1) Projects shall lead to climate change mitigation and/or adaption by providing or improving access to services/resources at household or community or institution level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc.</p>	<p>By providing a safe water in rural communities, the safe water Projects will improve access to safe water services/resources at community level.</p> <p>By distributing improved cookstoves the cookstove projects will ensure that households consume less firewood during the process of domestic cooking. As a result, there shall be a reduction of carbon dioxide emissions from the combustion process at household level. This mitigates climate change by increasing access to improved cooking technologies amongst rural communities</p> <p>As such, the projects are Eligible Project Types in line with the requirements.</p>
<p>1.1.2) In relation to the above all Projects shall therefore confirm to Gold Standard for the Global Goals Principles & Requirements (and associated documents)</p>	<p>The project conforms with GS4GG Principles and Requirements.</p>
1.2 General Eligibility Criteria	
<p>1.2.2 Types 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 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.</p>	<p>By providing safe water, the safe water Project activities reduce the energy requirements compared to the baseline scenario by removing the need for households to boil water for purification.</p> <p>By distributing improved cookstoves the cookstove Project activities reduce the energy requirements compared to the baseline scenario by ensuring that households consume less firewood through the use of a more efficient technology.</p>

<p>1.2.3 Project Area, Boundary and Scale Project Area and Boundary shall be defined in line with the applicable Methodologies or Product Requirements.</p> <p>Projects are eligible under the microscale scheme if the annual emission reductions achieved are limited to a maximum of 10,000 tonnes of CO₂eq in each and every year of the crediting period.</p>	<p>The project area and are defined in line with the applicable Methodology, in line with the locations outlined in Section A.2.</p> <p>The Projects are Micro-Scale Project as the annual issuance of each VPA is capped at 10,000 tCO₂e per year.</p>
<p>1.2.4 Legal ownership: 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 FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided.</p>	<p>CO₂balance UK Ltd is the Co-ordinating/Managing Entity which communicates with the Gold Standard; the project is managed in the Host Country by Project Implementer and/or its partners. Project Implementer have legal ownership of the carbon credits produced as result of the project.</p>
<p>1.2.5 The transfer of Product ownership shall be discussed during the local stakeholder consultations for regular cycle projects.</p>	<p>The discussion of transfer of Product ownership will be discussed in detail during Local Stakeholder Consultations, presenting the details of the project to the local community members, officials and Community Leaders who attend.</p>
<p>1.2.7 Where Gold Standard methodologies allow for a Suppressed Demand baseline scenario, this shall be limited to Small and Microscale Projects. Where a Suppressed Demand baseline is applied, it is not possible to 'stack' Gold Standard Impact Statements or Products as the definition of baseline may be contradictory.</p>	<p>The VPAs under this PoA are Micro-Scale Project and are therefore eligible for suppressed demand in the baseline scenario.</p>

SECTION C. DEMONSTRATION OF ADDITIONALITY

Finance derived from Gold Standard Certification funds, either entirely or in part, the on-going implementation of all projects under this PoA. This may include funding of implementing the project, such repairs of waterpoints or subsidising household technologies, and on-going project implementation, such as maintenance, repairs and sensitisation campaigns. The project activities under the PoA are sustained by the funding derived from Gold Standard Certification.

SECTION D. DURATION OF PoA

D.1. Date of first submission of PoA to Gold Standard

Crediting Period 1: 01/05/2012

Crediting Period 2: 20/02/2020

D.2. Duration of the PoA

28 years from 01/05/2013

Crediting Period 1: 01/05/2013 to 30/04/2020 (7 years)

Start date of the POA is 01/05/2021.

However, in line with GS POA Requirements s.3.1.2, crediting period start date is the crediting period start date of earliest VPA in the POA. Earliest VPA under POA 1247 is GS1359 which had a first CP start date of 01/05/2013. Hence, POA CP1 Start date is 01/05/2013.

Crediting Period 2: 01/05/2020 to 30/04/2025 (5 years)

SECTION E. OUTCOME OF PoA LEVEL STAKEHOLDER CONSULTATION

E.1. Summary of stakeholder consultation at PoA Level

These assessments have been/will be carried out at VPA level.

E.2. Consideration of stakeholder comments received

These will be at individual VPA level and available in the VPA-DD of each VPA.

E.3. Final Continuous Input / Grievance Mechanism at PoA Level

These will be at individual VPA level and available in the VPA-DD of each VPA.

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)	
GS Contact (mandatory)	help@goldstandard.org
Other	

APPENDIX 1 - CONTACT INFORMATION OF COORDINATING/MANAGING ENTITY AND RESPONSIBLE PERSON(S)/ ENTITY(IES)

CME and/or responsible person/ entity	<input checked="" type="checkbox"/> CME <input type="checkbox"/> Responsible person/ entity for application of the selected methodology(ies) and, where applicable, the selected standardized baseline(s) to the PoA
Organization	CO2balance UK Ltd
Street/P.O. Box	Cook Way
Building	1 Discovery House
City	Taunton
State/Region	Somerset
Postcode	TA2 2BJ
Country	UK
Telephone	+44 (0) 1823 332233
E-mail	Paul.chiplen@co2balance.com
Website	www.co2balance.com
Contact person	Paul Chiplen
Title	Director of Sales and Marketing
Salutation	Mr
Last name	Chiplen
Middle name	

APPENDIX 2 - DESIGN CHANGES

A2.1. Details of proposed or actual design change

As per section 3.5.1 category i (i.e. *addition of other methodologies, and/or other methodological regulatory documents*) of the *Design change requirements and procedures* version 2.0, the following *Permanent Changes* are requested for this PoA:

- With the introduction of the SDG Impact Tool, CME has decided to include SDGs 1 and 7 in the PoA. This change is necessary in order to be able to align the SDG contributions with the SDG Impact Tool requirements for the safe water project implementing Water Filters and other Treatment Methods, and Safe Water Sources (please refer to section A.3 of the PoA-DD).
- TPDDTEC v.4.0 has also been included as an applied methodology in the PoA.

As per section 3.2 of the *Design change requirements and procedures* version 2.0, the following *Corrections* are requested for this PoA:

- Section B point 3 of this PoA related to Flow Meters and Sensors: the wording has been updated to align with the ERSWDS methodology requirement for parameter SDWS23 (which specifies option 1 Flow Meters and option 2 Sensors).

A2.2. Describe the Impacts of design change on the following

a. *Additionality*

The design change will have no impact on project additionality.

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

The inclusion of SDGs 1 and 7 is necessary to align the SDGs contributions with the SDG Impact Tool calculations for the projects included in this PoA.

The addition of TPDDTEC v.4.0 has no impact on the applicability of methodology or other methodological regulatory documents for any projects using different applied methodologies in this PoA.

c. *Compliance with the monitoring plan of the applied methodology*

Monitoring and reporting will continue according to GS Principles and Requirements, Activity Requirements and Methodology Requirements.

Monitoring of the newly added SDGs will be determined at VPA level.

All projects using TPDDTEC v.4.0 will adhere to the monitoring plan set out in this methodology.

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

Monitoring of the newly added SDGs will be determined at VPA level.

All VPAs will comply with the monitoring requirements set out in the POA-DD and the applied GS methodologies. The Design Change does not impact the level of accuracy and completeness of the monitoring of the project activity.

e. Scale of the project activity

The design change will have no impact on project scale.

f. Stakeholder consultation

There is no need for stakeholder feedback on the design change because the project boundaries have not changed and the project activities are not expanding into project areas or technologies for which baseline studies do not already exist. Additionally, Stakeholders consultations are carried out at project level.

g. Sustainable development criteria

The impacts to the SDG listed in the PoA are assessed at VPA level.

h. Safeguarding assessment

Safeguarding assessment is carried out at VPA level.

i. Compliance with applicable legislation

Compliance with applicable Legislation is assessed at VPA level.

Revision History

Version	Date	Remarks
2.2	14 April 2023	Integrated the design change memo as annex of the document. Editorial changes
2.1	31 May 2022	Editorial changes and revisions
2.0	04 May 2022	Key Project Information table revised to cater for the following information: <ul style="list-style-type: none"> - Scale of PoA - Title and GS ID of all real case VPAs included in the PoA A new Management System section included Safeguarding Principles Assessment section removed Outcome of PoA Level Stakeholder Consultation section revised in the following manner: <ul style="list-style-type: none"> - Justification for Stakeholder Consultation at PoA Level Only section removed A new Consideration of Stakeholder Comments Received section added
1.1	14 October 2020	Hyperlinked section summary to enable quick access to key sections Improved clarity on Key Project Information Inclusion criteria table added Clarification on POA level LSC and Safeguard Principles Assessment 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