



TEMPLATE

DESIGN CHANGE MEMO

PUBLICATION DATE **04.03.2021**

VERSION **v. 1.1**

KEY PROJECT INFORMATION

GS ID (s)	GS6598
Title of Project	Water for Climate Rwanda Project
Start date of any New measures/Technologies:	30/08/2021
Date of Memo Submission (must be within 1 year of start date above):	30/08/2020

Details of Proposed Design Change

>> *(if PoA, please detail any changes to PoA design)*

The PDD of GS6598 mentions that the fNRB can be updated at any time during the crediting period. The project participants request with this Design Change Memo to update the fNRB value from 89.68% to 98.00%. The new value has been calculated by a third party based CDM Tool 30 EB 108 Annex 11 v3.0 2020.

Describe the Impacts of Design Change on the following

a. Additionality

The Design Change does not have any impact on the additionality of the project. The project continues to be considered as deemed additional, since implemented in the LDC country Rwanda.

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

The Design Change does not have any impact on the applicability of the methodology. Since the project continues using the same version of the applied methodology TPDDTEC v.3.1 and complies with all applicability criteria as confirmed in the following table.

Methodology applicability requirement	Justification related to the project activity	Impact of proposed Design Change
This methodology is applicable to programs 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. The methodology is for project technologies/practices that introduce 'zero emission technology' for safe water, instead of boiling water as a purification technique.	This project activity consists of the rehabilitation of existing or drilling of new 'zero emission' boreholes which will reduce GHG emissions by removing the need to boil water as a form of purification before consumption. The targeted end-users are households which would use non-renewable biomass to boil water as a form of purification or are lacking the access to safe drinking water (suppressed demand) in the absence of this project activity.	No impact, the DC does not alter the project activity in any way.
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.	CO2logic and mkaarbon safari together with the local implementing partner Water Access Rwanda (WAR) will implement the project. The individual households and institutions will not act as project participants.	No impact, the DC does not alter the governance of the project.

The project boundary needs to be clearly identified, and the technologies counted in the project are not included in another 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 prevent any possibility of double counting.	The project activity is implemented in the districts of Rusizi, Ngoma, Rwamagana, Bugesera, Kirehe and Nyagatare. Details about the project location are provided in section A.4 of this document. The unique identification including GPS coordinates of each borehole will be recorded in mWater¹. Moreover, the relevant online carbon registries (CDM, GS, VCS) have been checked to confirm that there are no other borehole projects in the districts where the project intervenes, hence no risk of double counting.	No impact, the DC does not alter the project boundary.
Technologies each have a continuous useful energy output of less than 150kW per unit (defines as total energy delivered usefully 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 borehole technology included in this project will not deliver any thermal energy in the project scenario but only seek to displace the use of non-renewable biomass used for boiling water in the baseline scenario and to provide the safe water for consumers without access to safe drinking water (suppressed demand). The useful energy output per single unit in the baseline	No impact, the DC does not affect the project technology nor the useful energy output in the baseline scenario.

¹ <http://www.mwater.co>

	scenario is less than 150kW. This has been demonstrated with the calculations (see tab 'Energy output'/ER calculation spreadsheet).	
The use of baseline technology as 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. 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. 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	Hygiene campaigns including the education of local people on the extensive health and environmental benefits (see section B.7 of this PDD) of using safe water supply sources will encourage the removal of the old technology. The success of this mechanism will be monitored and adjusted if proven unsuccessful. The proportion of end-users that are still boiling water fetched from the borehole in the project scenario will be monitored (via Water Consumption Field Test as described in Section B.7 of this PDD) and accounted for to calculate the fuel consumption and the corresponding project emissions.	No impact, the DC does not alter the existing monitoring activities.

technology, the corresponding emissions must be accounted for as part of the project emissions.		
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 the project situation, 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 should be informed and notified that they cannot claim for emission reductions from the project. For example, leaflets distributed with the products alerting the end-users to the waiving of their carbon rights in exchange for pricing or the improved technology, which discounts its true cost (waivers forms signed by end- users are another example).	Legally-binding contractual agreements between the project owner (CO2logic) and the local implementing partner (WAR) as well as CO2logic and mkaarbon safari are in place. As part of this agreement, the ownership and selling rights of the emission reductions resulting from the project activity are clearly defined, defining CO2logic as the entity claiming ownership rights of and selling the emission reductions resulting from the project activity. The transfer of carbon credit ownership from end-users to the project owner CO2logic will be proven with a written assertion signed by the head of the WASH committee on behalf of the communities in which the boreholes are located. The template of this assertion will be provided at the project validation and the final signed version of the same at project verification. Moreover, the end-users will be informed about the transfer of carbon credit ownership	No impact, the DC does not alter the transfer of carbon credits ownership in any way.

	through sensitization meetings. ²	
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 ¹⁴ .	No new biomass feedstock will be used in the project situation and therefore this condition is not applicable.	No impact, the DC does not involve the use of new biomass feedstock.
The water in its improved form should be available within 1 km walking/pedaling distance from the households.	The households included in this project are located within the 1 km walking/pedaling distance from the respective borehole (see Section B.7 of this PDD for further details). There is, anyhow, a two-year grace period (from date of project design certification) for any household falling outside of this distance, however once this period is over these households would not be included in the emission reduction calculations anymore.	No impact, the DC will not alter the distance of 1km between the households (end users) and improved water source.

² This will be evidenced either 1) through participants lists in which each of the participants of the sensitization meeting confirm that it was informed about the transfer of carbon credit ownership or 2) through a sensitization meeting protocol which describes the content of the sensitization/WASH meeting including the transfer of carbon credit ownership and which is signed by the WASH committee head/member and at least 3 witnesses (end-users).

Special attention is required as to the level of GHG emissions arising from production, transport, installation and delivery of the clean water supply or treatment options.	Since the project activity involves the rehabilitation of existing boreholes/drilling of new boreholes. No significant GHG emissions arising from production, transport, installation and delivery of clean water supply or treatment options are expected, unless grid electricity and/or diesel generators are used as back-up to solar energy in case of standpipe systems or any other water point. Such emissions from electricity and/or diesel use would have to be taken into account if they were material, i.e. if they are 5% or more of the overall project emissions.	No impact, the DC will not increase the GHG emissions arising from production, transport, installation and delivery of the clean water supply or treatment options.
Only end users that boil water or are currently using unsafe water are eligible for crediting. Suppressed demand can be applied in instances where inadequate safe water is available or where treatment is not practiced.	The project activity will claim credits only for end-users that boil water or which due to suppressed demand consume inadequate safe water and for which treatment is not practiced. The same is confirmed through the baseline survey.	No impact, the DC will not alter the end user population.

In addition, the established baseline scenario remains unchanged as it is based on the same baseline survey conducted within more than 100 households. Hence, the proposed design change does not impact the results of the baseline survey in any way.

c. Compliance with the monitoring plan and the applied methodology

The Design Change is in compliance with the monitoring plan. The fNRB is determined ex-ante (see section B.6.3 of the PDD “Data and parameters fixed ex-ante for monitoring contribution to each of the three SDGs”) though as described in the PDD the project proponent may at any time choose to re-examine the fNRB during the crediting period.

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

The Design Change does not have any impact on the level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan.

- e. Project Scale (note suppressed demand rules for large scale)

The Design Change does not have any impact on the project scale. Since the project had been already registered as large-scale project and continues as large scale project.

- f. Stakeholder feedback on design change

The Design Change is not expected to have any impact on the stakeholder’s feedback.

- g. Sustainable Development Assessment

Except SDG 13 indicator – Verified Emission Reductions, the Design Change does not have an impact on the Sustainable Development Assessment.

The proposed design change (change in fNRB value) affects SDG 13 indicator as follows:

Year	Net Benefit before Design Change	Net benefit after Design Change	Net difference
2019-2020	59,447	64,523	5,076
2020-2021	59,610	64,700	5,090
2021-2022	59,447	64,523	5,076
2022-2023	59,447	64,523	5,076
2023-2024	59,447	64,523	5,076
Total	297,398	322,792	25,394

Average

59,480

64,558

5,079

Since the design of the project itself does not change, the other SDG impacts (SDG 1, SDG 3, SDG 5 and SDG 6) of the project are expected to be the same.

h. Safeguarding Assessment

The Design Change does not have an impact on the Safeguarding Assessment. Since the design of the project itself does not change, the result of the Safeguarding Assessment of the project are expected to be the same.

i. Legislation

The Design Change does not have any impact on the legislation. The project was and will continue to be in compliance with Rwandan legislation.

Emission Reductions Before Change (as per PDD)	59,480 VERs/year
Emission Reductions After Change (as per PDD)	64,558 VERs/year

Documentation submitted

PDD, version 5.4

ER calculation, version 3.1

Rwanda_fNRB Report_08 September 2021

Rwanda_fNRB Calculation Sheet_24 May 2021