Validation report for inclusion of GS4GG Voluntary Project Activity (VPA)	
BASIC INFORMATION	
Title of the GS4GG VPA	VPA 02 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA002 (GS reference number: GS 10825) VPA 03 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA003 (GS reference number: GS 11218) VPA 04 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA004 (GS reference number: GS 11309) VPA 05 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA005 (GS reference number: GS 11310) VPA 06 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA006 (GS reference number: GS 11311) VPA 07 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA007 (GS reference number: GS 11312) VPA 08 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA008 (GS reference number: GS 11313) VPA 09 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA009 (GS reference number: GS11628) VPA 10 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway -

	VPA010 (GS reference number: GS11629) VPA 11 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA011 (GS reference number: GS11630) VPA 12 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA012 (GS reference number: GS 11631) VPA 13 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA013 (GS reference number: GS11632) VPA 14 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA014 (GS reference number: GS11633) VPA 15 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA015 (GS reference number: GS11634)
Title of the GS4GG PoA	PoA Title: Dissemination of Improved Cookstoves in India by Greenway GS reference number: GS10818
Scale of the project activity	☐ Large-scale ☒ Small-scale
GS Version applicable	GS4GG
Version number of the validation report	04
Completion date of the validation report	02/02/2023
Date and Version number of the VPA-DD to which this report applies	VPA 02 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 03 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 04 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 05 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 06 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 07 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 08 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 09 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 10 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 11 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 12 (VPA-DD): Version 3.0, dated 27/01/2023

	VPA 13 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 14 (VPA-DD): Version 3.0, dated 27/01/2023 VPA 15 (VPA-DD): Version 3.0, dated 27/01/2023
Coordinating/managing entity	Greenway Grameen Infra Pvt Ltd
VPA Implementer (s)	Greenway Grameen Infra Pvt Ltd
Host Party	India
Applied methodology	Methodology applied: AMS.II.G version 12
Activity Requirements applied:	GS4GG: Community Services Activity Requirements
Product Requirements applied:	GHG Emissions Reduction & Sequestration
Regular/Retroactive:	Regular (VPA 03 – VPA 15) Retroactive (VPA02)
Mandatory sectoral scopes	Sectoral scope 3: Energy demand
Conditional sectoral scopes, if applicable	N/A
Estimated amount of SDG Impact Certified	SDG Impact for each of the 14 VPAs: SDG 13 Climate Action (*GHG Emissions measured in tons CO_2*): 39,126 tCO2e/annum SDG 3: Good Health and Well Being (*Mortality rate attributed to household and ambient air pollution*): 70% SDG 5: Gender Equality (*Time spent collecting fuelwood from the forests*): 1.15 hours per household per week saved on firewood collection time SDG 7: Affordable and Clean energy (*Number of project households predominantly using clean cooking devices such as Improved Cook Stoves*): 15,500 number of project households predominantly using clean cooking devices such as Improved Cook Stoves SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Number of Employment): 15 number of employment for each VPAs.
Name and UNFCCC reference number of the VVB	4K Earth Science Private Limited UNFCCC Ref No. CDM-E-0069
Name, position and signature of the approver of the validation report	 S. Jagajothi Director

SECTION A. Executive summary

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4K Earth Science Private Limited has been contracted by 'Greenway Grameen Infra Pvt Ltd (Coordinating/managing entity)' to perform a validation of the 14 proposed Gold Standard for the Global Goals (GS4GG) VPAs in India as follows:

VPA Title:

1. VPA 02: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA002 (GS 10825)

2. VPA 03: GS10818 - Dissemination of Improved Cookstoves in India by Greenway -Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA003 (GS 11218)

3. VPA 04: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA004 (GS 11309)

4. VPA 05: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA005 (GS 11310)

5. VPA 06: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA006 (GS 11311)

6. VPA 07: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA007 (GS 11312)

7. VPA 08: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA008 (GS 11313)

8. VPA 09: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA009 (GS11628)

9. VPA 10: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA010 (*GS11629*)

10. VPA 11: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA011 (GS11630)

11. VPA 12: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA012 (GS 11631)

12. VPA 13: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA013 (GS11632)

13. VPA 14: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA014 (GS11633)

14. VPA 15: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA015 (GS11634)

The scope of the validation is defined as an independent and objective review of the Voluntary Project Activity design documents (VPA-DDs), the project's baseline study and monitoring plan and other relevant documents. The information in these documents is reviewed against the requirements of 'Gold Standard for Global Goals'/26/ in conjunction with the CDM Validation and Verification Standard for Programme of Activities (version 03)/25/, Project Standard for Programme of Activities (version 03)/25/, Kyoto Protocol requirements and UNFCCC rules.

The report is based on the assessment of the Voluntary Project Activity design documents (VPA-DDs)/1/2/ for each of the 14 VPAs, application of standard auditing techniques including but not limited to desk review, follow up actions (on-site visit, google meet interviews, whatsapp interviews and telephonic interviews) and

also the review of applicable approved methodological and relevant tools, GS4GG guidance and CDM decisions.

The proposed project activity (VPA 02 – VPA 15) has been developed by "Greenway Grameen Infra Pvt Ltd" with the purpose of reducing the high demand for firewood predominantly used for cooking in the baseline by end-users within the target areas. The VPAs are eligible under the CDM methodology AMS.II.G, version 12/9/. The 14 VPAs will disseminate improved cook stoves (ICS) to the households within Karnataka. This PoA involves promotion and dissemination of efficient cook stoves to households in India and enables the end users to switch from traditional stoves to a modern energy-efficient stoves in rural households. The purpose of the VPAs is to provide access to clean and affordable energy to the rural households in Karnataka state, India. By providing clean cooking, the project will ensure that households consume less firewood during the process of cooking and as a result there shall be a reduction of carbon dioxide emissions from the combustion process.

The CME of the PoA is Greenway Grameen Infra Private Limited (Greenway). The project involves promotion of improved cooking stoves (ICS) to the people of socially deprived community, in Karnataka state of India. Replacement of the traditional cooking stoves with ICS will reduce the exposure of the family members, specifically women, to the indoor air pollution and therefore result in reducing risk of health-related issues. Each ICS disseminated under the project will potentially reduce the firewood consumption. Thus, the VPA will reduce a significant number of emissions that would have been generated in the baseline scenario, where the traditional cookstoves would have been used.

The management of Greenway Grameen Infra Pvt Ltd is responsible for the preparation of the GHG emissions data and the reported GHG emission reductions.

A desk review and an on-site visit have been conducted to validate the GS4GG VPA-DDs (VPA02 – VPA 15)/1/2/ submitted for the inclusion in the GS4GG PoA (GS10818)/5/. 4KES confirms the following have been reviewed:

a. The PoA-DD/5/ and VPA-DDs/2/.
b. The applied monitoring methodology
c. Relevant decisions, clarifications, and guidance from the CMP and the CDM Executive Board
d. GS4GG guideline and related Annex.
e. All information and references relevant to the project activity's resulting in estimated emission reductions.

The scope of the validation is defined as an independent and objective review of the Voluntary Project Activity design documents (VPA-DDs) for 14 VPAs, against the requirements for including VPAs in the PoA, Kyoto Protocol requirements, UNFCCC rules, applicable CDM requirements and requirement of Gold Standard. The validation report is finalized based on the assessment of the GS4GG VPA-DDs and applying standard auditing techniques including but not limited to document reviews, follow up actions (e.g. site visit, remote interviews, telephone or e-mail interviews) and also the review of the applicable approved methodology and underlying formulae and calculations.

The report and the appendix-4 describe the following total findings which include:
• 03 Remaining FARs from preliminary review
• 05 Clarification Requests (CLs/CRs);
• 17 Corrective Action Requests (CARs);

The PP has responded these findings by modifying the Gold Standard VPA-DDs and providing adequate additional explanations and evidence. 4KES confirms that all the findings have been "closed out" before submitting the request for registration to GS board.
As a summary of the validation, the review of the GS4GG VPA-DDs and the subsequent follow-up interviews have provided 4KES with sufficient evidence for the determination of VPAs fulfillment with all stated criteria. In our opinion, the project meets all relevant UNFCCC requirements for the CDM and requirement of GS4GG. Therefore, 4KES recommends the project for registration by the GS Registry as GS VERs VPA.

The review of the VPAs design documentation and the subsequent follow-up interviews have provided 4KES with sufficient evidence to determine the VPAs fulfilment of all the stated criteria. In our opinion, the VPAs meets all applicable GS4GG requirements along with UNFCCC requirements for the CDM.

☒The VPA is recommended with a request for inclusion.
☐The VPA is not recommended for request for inclusion.

SECTION B. Validation team, technical reviewer and approver

B.1. Validation team member

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)	Involvement in			
						Desk/document review	On-site inspection	Interviews	Validation findings
1.	Team Leader, Technical Expert (TA 3.1) and Local Expert	EI	Badaya	Rohit	Central Office	✓	✓	✓	✓

B.2. Technical reviewer and approver of the validation report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of VVB or outsourced entity)
1.	Technical Reviewer & Expert (TA 3.1)	IR	Ma Paa	Puratchikkanal	Central office
2.	Approver	IR	Jagajothi	S	Central Office

SECTION C. Means of validation

C.1. Desk/document review

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The report is based on the assessment of the Voluntary Project Activities (VPA) design documents, application of standard auditing techniques including but not limited to desk review, follow up actions (site visit, electronic i.e. google-meet interviews, whatsapp and telephonic interviews) and also the review of the applicable approved methodological and relevant tools, GS4GG guidance and CDM decisions.

All the documents used for arriving validation conclusion are listed in Appendix 03 and referenced accordingly in validation report.

C.2. On-site visit

An on-site visit was conducted from 20/07/2022 to 22/07/2022 in Karnataka, where all the VPAs are located. Details of interviewees, topics covered and additional information presented in the below section “C.3 Interviews”.

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	J S	Sreejithlal	Business Development Manager, Greenway Grameen Infra	20/07/2022 - 22/07/2022	1. Roles and responsibilities 2. Monitoring requirement 3. Monitoring procedure 4. Data collection	Rohit Badaya (through on-site visit)

			Pvt Ltd		5. Start date 6. LSC 7. Carbon Rights 8. Sustainable Development parameters 9. Grievance Mechanism 10. Trainings 11. Stakeholder consultation process 12. Environmental impacts 13. Sales and distribution methods, trainings received, training to user, CER rights, sales receipts, how to use, usage etc. 14. Safeguarding principles etc.	
2.	Aiyappa	Indu	Assistant Sales Manager, Greenway Grameen Infra Pvt Ltd			
3.	Kumar	Ravi	Sales Officer, Greenway Grameen Infra. Pvt. Ltd.	20/07/2022		
4.	Kumar M.	Vijay	Field Officer, Greenway Grameen Infra. Pvt. Ltd.			
5.	Kumar	Charan	LMD, Greenway Grameen Infra. Pvt. Ltd.			
6.	N.	Nagaraj	A.S.O, Greenway Grameen Infra. Pvt. Ltd.			
7.	Eshwara	M.S	Project Officer, SKDRDP			
8.	B. N	Venuraj	Field Officer, Greenway Grameen Infra. Pvt. Ltd.			
9.	Kumar	Chethan	Field Supervisor, SKDRDP			
10.		Santhosha	Field Officer, Greenway Grameen Infra. Pvt. Ltd.	21/07/2022		
11.	Raju N.	Basava	Field Officer, Greenway Grameen Infra. Pvt. Ltd.			
12.		Majula	Seva Prathinidhi, SKDRDP			
13.	SPD	Prabhu	Field Officer, Greenway			
14.	Kumar HJ	Naviina	Seva Prathinidhi, SKDRDP			
15.		Prakasha	Field Officer, Greenway Grameen Infra. Pvt. Ltd.			
16.		Basavraj	Senior Executive Lodging, Greenway Grameen Infra. Pvt. Ltd.	22/07/2022		

17.	BN	Mallappa	Senior Executive, LMD, Greenway Grameen Infra. Pvt. Ltd.			
18.	Bidikar	Atharv	Field Officer, Greenway Grameen Infra. Pvt. Ltd.			
19.	Saraf	Saurabh	Director, OffsetFarm Pte. Ltd.	12/07/2022, 22/07/2022, 18/08/2022	1. VPA design and Implementation 2. Baseline assessment 3. Issues in the VPA-DD 4. Roles and responsibilities 5. Applicability of the methodology 6. Emission reduction 7. Identification of users, Sales and distribution methods, trainings received, training to user, CER rights, sales receipts, How to use, usage etc. 8. Data collection 9. Baseline Surveys 10. Safeguarding principles, 11. Project scenario, 12. Grievance mechanism, 13. Environmental impact, 14. Stakeholder consultation process, 15. Sustainable development, baseline etc.	Rohit Badaya (through Google meet, telephonic call and Whatsapp call)
20.	Kazi	Shoeb	Director, Greenway Grameen Infra. Pvt. Ltd.	12/07/2022, 22/07/2022		
21.	Singh	Aditi	Employee, Greenway Grameen Infra. Pvt. Ltd.	12/07/2022		

Interviews with the households for Baseline:

No.	Household name	Contact	Subject	Team member
1	Ambuja	8197213725	Baseline practice and usage etc.	Rohit Badaya (through on-site visit)
2	Lashmidevamma	9019836758		
3	Rathnamma	9900661505		
4	Kavitha	9738161951		
5	Laxman Sankpla	9535521864		
6	Hema	8970186008		
7	Naga lakshmamma	8453816103		
8	Neelamma	8951319705		
9	Suvarna Sudhakar Bhagadi	8197428719		

Additionally the VVB also confirmed the baseline survey with 18 more households, which were visited as part of monitoring surveys, since a single site visit was undertaken for the combined validation and verification of VPAs. The following additional 18 households were interviewed for the baseline surveys.

No.	Household name	Contact	Subject	Team member
1	Bharti (ICS ID: J21VK123091)	9886512704	Baseline practice and usage etc.	Rohit Badaya (through on-site visit)
2	Kaveshvari (ICS ID: J21VB195493)	8880804863		
3	Aruna Kumari (ICS ID: J20VK114918)	9071843469		
4	Renuka (ICS ID: J20VK113953)	7975355978		
5	Kaveri Amma (ICS ID: J22VA162032)	7411176709		
6	Nagamma (ICS ID: J22VB174545)	9066886686		
7	Soumya (ICS ID: J21VL141339)	6362036662		
8	Radhmma (J21VB179305)	6361756979		
9	Rathnamma (ICS ID: J21VK123406)	9964088588		
10	Nirmala (ICS ID: J21VG042324)	8759857646		
11	Chikkamma (ICS ID: J20VL139603)	9731374720		
12	Pratima (ICS ID: J21VL075664)	7483872591		
13	Mangalamma (ICS ID: J21VJ101719)	8884323009		
14	Shanatava Laxmeshwar Neth (ICS ID: J22VE029595)	9036724019		
15	Yashodha Modugudra (ICS ID: J21VK118210)	6363531212		
16	Bharathi Basavaraj Joteppanvar (ICS ID: J22VA159069)	8748837279		
17	Savitri Ramesh Maleshi (ICS ID: J22VC207575)	8884711656		
18	Jazmin Gokak (ICS ID: J20VH062380)	9686707525		

Some of the questions asked from the baseline technology users:

Questions
Name, location, mobile number
Number of People live/eat
Type of stove used
Major income source for the household
Education level
Stove Serial Number
Who cook meals in the household
How many meals are cooked per day
Time taken to cook the meal
Where do you mostly use the stove
What type of fuel is used.
Quantity of fuel used in a day.
Secondary fuel used for cooking purposes
Boundary for collecting the fuel?
Who collects the fuel
Time spent for collecting fuel?
Do you buy or collect your fuel?
Are you satisfied with your baseline stove
what ventilation features does the kitchen area have?
Has someone in the household experienced coughing due to stove.
Has someone in the household visited a healthcare professional in the past 30 days due to any of the conditions mentioned in the previous question?

C.4. Sampling approach

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VVB has checked the Baseline practice etc. during the site visit on a random basis from the baseline users as per the baseline survey /11/ conducted by the VPA Implementer in the project area.

VVB had planned to apply the acceptance sampling. 4KES validation team carried out the random sampling from the PP's records and check (using its professional judgment) the acceptability of the data for each record in the PP's sample records against VVB records i.e. Data checked during the site visit. The VVB has determined acceptance sample size based on the "Table. Sample size and acceptance number based on AQL, UQL, and producer and consumer risks" of standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0.

Using acceptance sampling approach, VVB checked the survey records from PP's baseline survey with the VVB interview records.

For the determination of VVB's acceptance sample size, validation team has selected the following using its professional judgment:

1. Acceptable quality level (AQL) – 0.5%

2. Unacceptable Quality Level (UQL) – 20%
3. Producer risk -5%
4. Consumer risk -15%

VVB team has determined acceptance sample size based on the "Table. Sample size and acceptance number based on AQL, UQL, and producer and consumer risks" of standard "Sampling and surveys for CDM project activities and programmes of activities" version 09.0/27/. From the above factors, the VVB determined the minimum sample size (n) as 9 and acceptance number as 0. VVB randomly selected the households from the baseline survey sheet. Hence the acceptability of the baseline survey data for each PP's records were checked during the site visit.

The result of the survey is given below:

VVB Sample size	No of PP's record beyond unacceptable level	Accepted
9	0	9

Validation team has found the baseline survey data and results /11/ as correct based on the interviews conducted during the site visit. Hence baseline survey is accepted to the Validation team. The baseline survey data and results /11/ was further cross-checked through the interviews conducted for the additional above 18 households during the site visit and found as correct. Hence baseline survey is accepted to the Validation team.

C.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised

During the validation, 05 CLs and 17 CARs were raised and successfully closed. Refer Appendix 4 of this report for more details. The remaining FARs from preliminary review has also been addressed during the validation.

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	Validation team checked the VPA Design Documents /02/ with latest version of VPA-DD template available in the GS website (i.e., version 2.0) /30/.
Findings	CAR 08 was raised and successfully closed. Refer Appendix 4 of this report for more details.
Conclusion	The validation team confirms that the proposed VPAs meets the requirement of GS4GG and the VPA-DDs are completed using the valid version of the VPA-DD form/30/.

D.2. Description of project activity

Means of validation	The CME of the VPAs is Greenway Grameen Infra Private Limited (Greenway). Under the program, Greenway Grameen Infra Private Limited (Greenway) in association with local partner has developed the VPAs. The purpose of the PoA is to introduce Improved Cook Stoves (ICS) in household's premises that use traditional stoves for cooking. The 14 VPAs are located in several districts of Karnataka state in India and aims to distribute ICS that will replace the traditional stoves and lead to reduction in consumption of biomass. The assessment team has confirmed the same during the site visit and through the desk review of the VPA-DDs/2/ & supporting documents. The VPAs involves dissemination of Greenway Jumbo stove (JS1), which has higher thermal efficiency (38%) that is achieved through optimizing the dimensions of the combustion chamber and effective air flow to aid complete combustion of biomass. The ICS will deliver 65% fuel savings and can be run on all type of solid biomass fuels. Thermal efficiency of the

ICS is verified through the efficiency test certificate /21/ and found to be in line with the methodology requirements /09/. The PoA follows the host country rules and regulations.

Location of the project activity
The 14 VPAs are located in Karnataka state within the territorial boundary of India. The VPA-DDs include further details on the location of the project activity:

Latitude	15.317° North
Longitude	75.714° East

The co-ordinates of the location of the site were appropriately included in the VPA-DDs /02/. The location has also been confirmed through website https://www.google.co.in/maps. The location of the VPA is mentioned under section A.2 of the VPA-DD /02/ which is also confirmed during the site visit.

The technologies/measures to be employed and/or implemented by the project activity
The technical description of the voluntary project activity has been validated by assessing the manufacture specifications evidence /16/ and the actual photographs. All the information was correctly mentioned in the VPA-DDs /02/.

The summary of the proposed VPAs and the technology involved are described in the VPA-DDs /02/ with sufficient details and clarity. The accuracy of the project description was determined based on the site visit as part of validation audit, review of supporting documents (as mentioned in Appendix-3 of this report), and interaction with the key personnel as listed under section C.3 of the validation report.

The baseline scenario has been found in accordance with the applied methodology AMS II.G – Energy efficiency measures in thermal applications of non-renewable biomass, Version 12.0 /09/.

The start date of the VPAs have been selected in accordance to section 3.4.3 of GS4GG Principles & Requirements and a renewable crediting period of 5 years with the operational lifetime of the product as more than 5 years.

The sustainable development goals and their outcome is transparently discussed under section A.1 of the VPA-DDs/02/. The assessment team has checked and reviewed the VPA-DDs with supportive evidence and found the details to be correct.

The validation team looked out for the signs of any ODA that project might have received but did not find anything in this regard. Therefore, it can be confirmed that proposed VPAs did not receive any ODA. Additionally, a declaration /22/ in this regard was obtained from CME.
The proposed GS VPAs are described as Type II and has applied AMS II.G – Energy efficiency measures in thermal applications of non-renewable biomass, Version 12.0 /09/ and VPA falls into the small-scale category.

The proposed GS VPA is not a CPA/VPA that has been excluded from a registered PoA because of erroneous inclusion of CPAs/VPAs.

Validation team has confirmed the project description during the site visit and project technology users interview and found OK.

The VPAs involves the dissemination of cookstoves within various districts in the state of Karnataka in India. The improved cookstoves uses patented air regulation technology to reduce the emissions generated while cooking.

CDM Methodology chosen for the registered PoA and the included 14 VPAs is AMS.II.G/9/. The project adheres to the following conditions.

The specific features of the stove design, in line with the key requirements as stipulated under section A.4, are:
Greenway Jumbo stove
- Single Fed (Single combustion chamber)
- Portable

	- Fuels: All woody biomass (leaves and twigs, wood, cow dung, agricultural residue and wastage, etc.) - Efficiency: Greenway Jumbo stove (JS1) - 38% - Life expectancy: more than 5 years - High durability - Almost smokeless - Designed by Greenway, Made in country **The project boundary** As per the applied methodology, the project boundary is the physical, geographical site of the efficient devices that utilize biomass. Therefore, the project boundary covers each project ICS location. As the project ICS are spread in Karnataka state, India, the project boundary covers entire Karnataka state where the project ICS are installed. The project ICS installation point is verified from installation database /10/. The project boundary is correctly identified in accordance with the methodology AMS-II.G (Version 12)/9/. All greenhouse gas emissions (CO_2) occurring within the proposed project activity boundary because of the implementation of the proposed VPAs have been appropriately addressed in the VPA-DDs. The project boundary includes the premises of the end-users (households) within the target areas of the project activity. More details about the project boundary are provided in section B.3 of this VPA-DDs /02/. The VPA boundary is in compliance with the PoA-DD /05/. **Registration with other Carbon standards** The project activity is not registered with any other carbon standard, nor is it seeking registration under any other GHG programs, and hence there is no likelihood that double counting would occur. Additionally, each cooking technology shall be assigned a unique customer identification number which gives a distinction on the end-users, which will ensure there is no double counting. Declaration has been provided by the CME for double counting /14/. **Carbon credits ownership** The legal ownership of the products generated belongs to Greenway Grameen Infra Pvt Ltd. The end-users' consent to the transfer of carbon credits generated from using the project technology at the time of installation of the ICS. By signing the consent form /18/, all carbon rights are transferred to Greenway Grameen Infra Pvt Ltd. **Implementation plan** Greenway Grameen Infra Pvt Ltd is the VPA implementor for the project activity in India and will be directly responsible for maintaining the distribution database, collecting baseline information, and co-ordinating the annual monitoring process. Greenway Grameen Infra Pvt Ltd is also responsible for coordinating the distribution and installation of the units, maintenance services and management of the field sales and service teams. Each of the VPAs involves installation of 15,500 ICS units to the end-users located within the project target areas. The expected ex-ante annual average emission reductions are 39,126 tCO_2e for each of the VPAs (VPA 02 – VPA 14) to be included in the PoA. The estimated total emission reductions for the first crediting period are 195,630 tCO_2e for all the VPAs (VPA 02 to VPA 15) to be included in the PoA. **Host Country regulations on emission reductions** The project is in compliance with the host country's (India's) legal, environmental, ecological & social regulation. There are no objections for the implementation of these types improved cook stoves (ICS) project in the host country i.e., India and same can be checked from the MOEF (Ministry of Environment & Forest) & MNRE (Ministry of New & Renewable Energy) websites[1]. The justification has been provided by CME under section A.1 of the VPA-DDs /02/ and found OK.

[1] http://164.100.94.214/national-biomass-cookstoves-programme

VPA comply with applicable Host Country's legal, environmental, ecological and social regulations as demonstrated under section A.1 of the VPA-DDs /02/.

Eligibility of the VPA under the PoA eligibility criteria:

No.	Eligibility Criterion	Means of Validation	Conclusion
1.	VPA Location and Project Boundary The geographical boundary within which the technologies are installed will be within the Project Boundary outlined in Section A.3	Sales database listing all the installed cookstoves is checked by the validation team to confirm that the ICS are installed within India.	VPAs are in several districts of Karnataka state in India, hence in compliance with the criteria. Hence the eligibility criteria has been met.
2.	Avoiding Double Counting of Emission Reductions Each VPA will ensure that double counting of emission reductions is avoided, through the unique identification of each ICS with an identification number.	Each cookstove has a unique ID number which avoids double counting of the same ICSs. The unique id shall be checked by the team involved in inclusion of VPA.	The ICS implemented under the VPAs are given a unique identification number, as confirmed from the sales database /10/, and verified during the site visit interview with households. Each ICS under the VPA has GPS co-ordinates to avoid double counting of emission reductions & thus are distinguishable. Therefore, the assessment team confirms that the ICS counted in the VPA are not included in any other voluntary market or CDM project activity (i.e. no double counting takes place). Hence the eligibility criteria has been met.
3.	Avoiding Double Counting of Programme Activities Each VPA will show that it is exclusive to the PoA and not registered as another project activity or VPA under another PoA.	Declaration from CME that VPA is neither registered as GS or CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered.	The CME has provided the declaration stating that VPAs are neither registered as GS or CDM project activities, included in another registered PoAs, nor the project activities that have been deregistered. Hence the eligibility criteria has been met.
4.	Target Group Each VPA involves the distribution and installation of efficient cook stoves to households and/or communities currently cooking	It was confirmed though interview of the CME representatives and some households that the target group is households and distribution is done by local partners. The same will be	The target group of the activity are households living in the project area currently using inefficient cooking devices. Each sold efficient cookstove will be recorded in the

		with non-renewable biomass on a traditional stove. Distribution Mechanism: Via Local distribution agencies/VPA Implementer	followed by each VPA to be included under this PoA.	project database together with the contact details of the family as described in Section B.7.3 of the VPA-DDs. Hence the eligibility criteria has been met.
	5.	Technology: The technology involves energy-efficient cookstoves with a thermal efficiency of more than 20%. The technologies will deliver continuous energy output of less than 150kW per unit.	Technical description of the cookstoves shall be shared with the DoE involved in inclusion to confirm that the annual energy savings of each ICS should be less than 600 MWh and thermal power should be less than 150 kW. VPAs will provide information on material and dimensions of stoves, based on manufacturer's specification and/ or third-party report	The continuous useful energy output of unit (i.e. cook stove) is less than 150kW as demonstrated in the Emission Reduction spreadsheet /04/. Hence the eligibility criteria has been met.
	6.	Start date: The start date of the VPA shall not be prior to the PoA period start date and the VPA crediting period shall start from the VPA start date or two years prior to the date of Design Certification – whichever is later.	Start date of VPA shall be the date on which first ICS was distributed. The start date of any proposed VPA will be on or after the start date of the proposed PoA	Start date of each of the VPAs is being defined as the earliest date on which the Project Developer has committed real action (i.e. the date of selling the first efficient ICS in each VPA) or Invoices/19/. Hence the eligibility criteria has been met.
	7.	Methodology: Each VPA is in compliance with CDM methodology AMS.II.G version 12.	The VPA shall meets all the applicability criteria of AMS II.G version 12. The detailed assessment of which has been given under section D.2.3.1 of this report. The VPA to be included will also be checked for the same	The VPA applies the methodology AMS II.G version 12/9/, consistent with the PoA. The applicability of the methodology is demonstrated in Section B.2 of the VPA-DDs. Hence the eligibility criteria has been met.
	8.	Additionality: Each VPA demonstrate additionality according to the criteria outlined in the PoA-DD.	Additionality has been demonstrated at PoA level. The ICS distributed under the VPA are isolated units where the users of the technology are households and where each unit results in <=600 MWh of energy savings per year. ER calculation sheet to determine annual energy savings.	The VPAs complying with the additionality criteria as described under the PoA-DD. ER calculation sheet showing results in <=600 MWh of energy savings per year for each unit. The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year from all units/stoves or

				activity included under the threshold of 600 MWh (thermal). The maximum number of ICS included under the project is given below under the small-scale project limit (Ref: ER calculation sheet) and hence found correct. Hence the eligibility criteria has been met.
	9.	Non-Diversion of ODA: There is no diversion of ODA for any of the proposed VPAs	CME will provide a declaration to confirm that the VPA has received no ODA.	CME has provided a declaration to confirm that the VPAs have receive no ODA/22/. Hence the eligibility criteria has been met.
	10.	Sampling: At the time of verification, random sampling shall be conducted on the basis of the age group of all the cookstoves. VPAs under the program will adhere to all requirements as mentioned in the latest standard of Standard: "Sampling and surveys for CDM project activities and programme of activities" at the time of inclusion.	VPAs under the program will adhere to all requirements as mentioned in Standard: Sampling and surveys for CDM project activities and programme of activities	Simple random sampling shall be conducted based on the age group of all the cookstoves distributed under VPAs at the time of verification. Hence the eligibility criteria has been met.
	11.	Scale of the Activity: The PoA falls under type II energy efficiency improvement projects. The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year. Each VPA is designed to comply to small scale requirements by limiting the maximum number of cookstoves per VPA. Each VPA will estimate the aggregate annual energy savings based on the thermal efficiency gains achieved by each of the technology/product -model planned under the VPA. The maximum number of cookstoves will be fixed for each VPA based on the above calculation to limit the total energy savings upto 180 GWh per year.	The aggregate annual energy savings of each VPA shall not exceed 180 GWh.	ER sheet is provided that showing that the annual energy savings of the VPA shall not exceed 180 GWh. The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year from all units/stoves or activity included under the threshold of 600 MWh (thermal). The maximum number of ICS included under the project is given below under the small-scale project limit (Ref: ER calculation sheet) and hence found correct. Hence the eligibility criteria has been met.

	12.	SDG outcome assessment: VPA shall demonstrate a clear, direct contribution to sustainable development, defined as making demonstrable, positive impacts on at least three SDGs, one of which must be SDG 13 (defined herein as Emissions Reductions or Removals and/or Adaptation to climate change)	VPA under the PoA shall demonstrate positive impacts on the SDGs as defined under section A.3 of the PoA-DD.	The VPAs have positive impacts on SDG 3, SDG 5, SDG 7, SDG8 and SDG 13. SDG contribution with explanation is provided in section B.6 of the VPA-DDs. Hence the eligibility criteria has been met.
	13.	Carbon Transfer: It is clearly communicated that Greenway Grameen Infra Pvt Ltd is the entity that is claiming ownership rights of and selling the emission reductions resulting from the project activity.	A default sales agreement for end users including the provision that emission reductions achieved by the project technology are owned by the CME.	PP has clearly communicated to the stakeholders of each VPA about the claiming of ownership rights though Carbon right transfer form /18/, during the Local stakeholder consultation, as confirmed during the site visit. The users are fully aware that the carbon ownership rights will be transferred to the project implementer (CME) as indicated in carbon right transfer form /18/. Hence the eligibility criteria has been met.
	14.	Safeguarding Principles Assessment: Each VPA will describe the implementation plan for ensuring safety of operational team/staff and the households.	Safeguarding principles assessment is done at PoA level. VPA- DD section C.1 will contain description regarding compliance to Safeguarding Principles.	Safeguarding principles assessment is conducted at PoA level is justified and appropriate. Mitigation measures with reference to the monitoring of safeguarding principles is provided under Appendix-1 of the VPA-DDs. Hence the eligibility criteria has been met.
	15.	Retroactive Crediting Period: VPAs retroactive crediting period submit the required documents for Gold Standard Preliminary Review (time of first submission) within one year from the VPA start date.	All the VPAs have been approved under Preliminary Review	The VPAs have already passed the Preliminary Review stage. Hence the eligibility criteria has been met.
	16.	Grievance Mechanism: All VPAs shall have the methodology of addressing grievances of stakeholders as indicated in section F.3 of PoA DD.	The grievance mechanism is incorporated in the VPA-DD.	The Grievance mechanism has already been set-up as per the GS requirements. Hence the eligibility criteria has been met.

Eligibility with GS4GG Requirements:
The proposed project falls under section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2)/26/, section 3 of *GS4GG Community Services Activity Requirements* (Version 1.2)/26/ and section 5 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)/26/* with the following eligibility criteria:

Eligibility Criteria	**Justification**
(a) **Types of Projects** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) Eligible projects shall include physical action/implementation on the ground. Pre-identified eligible project types are identified in the Eligibility Principles and Requirements section.	The project falls under - Type II – Energy Efficiency Improved Projects as ICS stoves results into savings of wood as compared to the baseline scenario. Therefore, the project activity falls under section 3.1.1 (b) "End-Use Energy Efficiency Improvement: 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". Hence the proposed project falls under End-use energy efficiency type as per clause 3.1.1 (b) of GG4GG Community Services Activity Requirements/26/. Besides, the project activity falls under section 5.1.1 (b) "End-Use Energy Efficiency Improvement: 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" of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements* (Version 2.0)/26/.
Section 3.1.1 of *GS4GG Community Services Activity Requirements* (Version 1.2) Pre-identified CSA project types are a) Renewable energy; b) End-use energy efficiency; c) Waste management and handling; d) Water, sanitation, and hygiene (WASH).	As per section 4.1.3 of *GS4GG Principles & Requirements* (Version 1.2)/26/, "A Project type is automatically eligible for Gold Standard Certification if there are Gold Standard approved Activity Requirements and/or Impact Quantification Methodologies associated with it, or it's referenced in the Gold Standard Product Requirements". The project type is "End-Use Energy Efficiency Improvement" and the Impact Quantification Methodology to be applied is AMS II.G, "Energy efficiency measures in thermal applications of non-renewable biomass, v12". Section 2.1 (f) provides that "*This methodology comprises efficiency improvements in thermal applications of non-renewable biomass. Examples of applicable technologies and measures*
Section 5.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* The Following Project types are eligible for issuance of Gold Standard VERs: a) Renewable Energy Supply; b) End-Use Energy Efficiency Improvement; c) Waste Handling & Disposal; d) Land Use and Forests.	

		include the introduction of high efficiency biomass fired project devices (cookstoves or ovens or dryers) to replace the existing devices and/or energy efficiency improvements in existing biomass fired cookstoves or ovens or dryers". The project activity shall only claim emission reduction based on this requirement and is hence eligible for Gold Standard Certification. Validation team confirm that that VPAs are in compliance with the GS4GG requirements.
	(b) **Location of Project:** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) Projects may be located in any part of the world. Section 3.1.2 of *GS4GG Community Services Activity Requirements* (Version 1.2) Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements. Section 3.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* Gold Standard VER Projects may be located in any host country or state. However, where host countries or states have mandatory operational schemes to reduce GHG emissions in any form (e.g., cap & trade, carbon tax etc.), Projects shall only be eligible if the Project Developer has either: (a) provided Gold Standard with satisfactory justification that no double counting of emission reductions occurs or (b) has committed to retiring eligible units equal to the quantity of Gold Standard VERs. Refer to Annex A of this document.	The VPAs are located in the Karnataka state of India (refer to section A.2 of the VPA-DDs /02/ for detailed project area and boundary), which was confirmed during the site visit. There are no mandatory operational schemes to reduce GHG emissions in any form (e.g., cap & trade, carbon tax etc.) in India, which based on section 3.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)/26/* is an eligible host country. Declaration for double counting has been submitted by CME /14/. Validation team confirm that VPA is in compliance with the GS4GG requirements.
	(c) **Project Area, Project Boundary and Scale:** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) The Project Area and Project Boundary shall	The project activity location is whole of India, Boundary- Territorial boundary of India and Scale- The project falls under small scale projects. Each of the improved

	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. 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). Section 3.1.2 of *GS4GG Community Services Activity Requirements* (Version 1.2) Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements. The definition of scale is the same for all Projects, except Microscale. Section 3.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* Gold Standard VER Projects may be located in any host country or state. However, where host countries or states have mandatory operational schemes to reduce GHG emissions in any form (e.g. cap & trade, carbon tax etc.), Projects shall only be eligible if the Project Developer has either: (a) provided Gold Standard with satisfactory justification that no double counting of emission reductions occurs or (b) has committed to retiring eligible units equal to the quantity of Gold Standard VERs. Refer to Annex A of this document.	cook stoves (ICS) will be having output below 150KW and aggregate of 180 GWh at VPA level (refer to section A.2 of the VPA-DDs /02/ for detailed project area and boundary) and there are no mandatory operational schemes to reduce GHG emissions in any form (e.g., cap & trade, carbon tax etc.) in India, which based on section 3.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)/26/* is an eligible host country. The VPA is located in Karnataka state of India, locations are provided in the prescribed section of VPA DD i.e. Section A.2. To avoid double counting, various measures have been taken by the CME at entity level and individual level, which are described in section B.1 below “Measures to avoid double counting”. In summary, each VPA implementer will declare that the proposed VPA is not part of any other PoA or carbon offset scheme at the time of inclusion, each user will declare that the relevant household has not been a beneficiary or participant of any other carbon offset project/programme and each household will be physically inspected for any indications of previous participation by the household in any carbon offset scheme. Local distribution partner of the CME will help in identifying the project areas which have not been part of any other similar carbon offset programme. Further, the project area will be checked during each VPA implementation to confirm that no similar projects are implemented in the region and if so, then appropriate measures are taken to avoid double counting. Hence, the double counting concerns related to the PoA are well addressed through a robust implementation & management system. The project activity boundary is defined based on the methodology “AMS II. G. (Version 12)” and is limited to the India (refer to section B.3 of the VPA-DD /02/). The project activity location is India (refer to

	Section 9.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* GSVER Projects may be registered as 'large scale', 'small scale' (for the applicability of methodologies and tools only) or 'microscale'. Scale is defined in the relevant Activity Requirements or where these do not exist then per following paragraphs. Section 9.1.2 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* All Projects exceeding the small-scale thresholds are defined as large scale. Small scale projects are defined in accordance with CDM project standard for project activities, as below; (a)Type1: Renewable energy Projects: maximum output capacity of 15 MWI or 45MW(th). (b) Type 2: End-use energy efficiency project improvement: activities that reduce energy consumption, on the supply and/or demand side, with a maximum energy saving of 60 GWh per year (or an appropriate equivalent) in any year of the crediting period. In this context, for project activities that improve thermal energy efficiency, the maximum energy saving of 60 I(e) per year is equivalent to 180 GWh(th) per year savI; (c) Type 3: Other project activities: project involves technologies such Safe Water Supply, Waste management, etc. not included in Type I or Type II that result in GHG emission reductions not exceeding 60,000-ton CO2e per year in any year of the crediting period.	section A.2 of the VPA-DD /02/ for detailed project area and boundary). As indicated above, the host country does not have an emission reduction cap, nor does it trade emission that include the scope of the proposed project activity. Declaration for double counting has been submitted by CME /14/. The energy saving per unit (per stove or activity) is less than 600 MWh and the project falls under type II energy efficiency improvement projects. The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year from all units/stoves or activity included under the threshold of 600 MWh (thermal). The maximum number of ICS included under the project is given under the small-scale project limit (Ref: ER calculation sheet). Validation team has checked the calculation /04/ and found OK. Validation team confirm that VPA is in compliance with the GS4GG requirements.
	(d) **Host Country Requirements** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) Projects shall be in compliance with applicable Host Country's legal, environmental, ecological and social regulations. Section 3.1.2 of *GS4GG Community*	The project activity location is the India (refer to section A.2 of the VPA-DDs /02/ for detailed project area and boundary). The project is in compliance with the host country's (India's) legal, environmental, ecological & social regulation. There are no objections for the implementation of these types improved cook stoves (ICS) project in the host country i.e., India and same can be checked from the MOEF (Ministry of

	Services Activity Requirements (Version 1.2) Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies and Product Requirements. Section 3.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* Gold Standard VER Projects may be located in any host country or state. However, where host countries or states have mandatory operational schemes to reduce GHG emissions in any form (e.g. cap & trade, carbon tax etc.), Projects shall only be eligible if the Project Developer has either: (a) provided Gold Standard with satisfactory justification that no double counting of emission reductions occurs or (b) has committed to retiring eligible units equal to the quantity of Gold Standard VERs. Refer to Annex A of this document.	Environment & Forest) & MNRE (Ministry of New & Renewable Energy) websites[2]. The host country has not set any mandatory operational schemes to reduce GHG emissions in any form (e.g., cap & trade, carbon tax etc.). Based on section 3.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)/26/* India is an eligible host country. A detailed assessment on the project's compliance with the applicable host country's legal, environmental, ecological, and social regulations is summarized in tables 2 and 3 of the VPA-DDs /02/ which is found OK. The implementation of the project activity is fully in line with the relevant energy policies of India. The project is in compliance with the applicable host country's legal, environmental, ecological and social regulations, benefits the local residents and will help in contributing towards India's National emission reductions target. Validation team confirm that VPA is in compliance with the GS4GG requirements.
	(e) **Contact Details** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) 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 organization (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.	The Project Participants' contact details are provided in Appendix 2 of the VPA-DDs /02/. The project developer (Greenway Grameen Infra Pvt Ltd) and the VPA implementor (Greenway Grameen Infra Pvt Ltd) are legally registered to operate in the respective host country as proof that they are in good standing. The companies' certificates of incorporation is checked for the Greenway Grameen Infra Pvt Ltd /13/. Validation team confirm that VPA is in compliance with the GS4GG requirements.
	(f) **Legal Ownership** Section 3.1.1 of *GS4GG Principles &*	CME holds the legal right of claim for emission reduction offsets accrued due to the PoA operations and ensures avoidance

[2] http://164.100.94.214/national-biomass-cookstoves-programme

	Requirements (Version 1.2) 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. Section 3.1.4 of *GS4GG Community Services Activity Requirements* (Version 1.2) Projects involving the distribution of a large number of devices for services such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter, etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with the FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided. The transfer of Product ownership shall be discussed during local stakeholder consultations for projects.	of claims by other stakeholders through mutually agreed contract agreements signed between the CME and other stakeholder entities for transfer of rights on emission reduction or other impact assets in favor of CME and no right of claim to the other stakeholders. Each ICS end-user, who is the default owner of emission reductions, is notified on the need to waive ownership of the emission reductions generated from using the project technology upon installation of the units. The waiver will be signed with each end-user when installing the ICS to make sure the project developer reserves the legal ownership of the emission reductions generated by the project activity. This is done by signing/consenting to the end-user agreement which contains the details regarding the transfer of the carbon rights. Validation team has confirmed the same from the signed end user agreement /18/ and site visit. Moreover, the ownership of the products generated from the project activity was discussed during the stakeholder consultation meeting. The stakeholders discussed the need for transfer of ownership of the carbon rights, and it was determined that the project owner had the undisputed legal ownership of the carbon credits generated from use of the project technology. Validation team confirm that VPA is in compliance with the GS4GG requirements.
	(g) **Other Rights** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) 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.	The project activity does not involve any activity that causes alteration of any resource, or contested legal rights and other disputes, therefore the need for acquiring any specific legal right is not applicable. Validation team confirm that VPA is in compliance with the GS4GG requirements.

	(h) **Official Development Assistance (ODA) Declaration** Section 3.1.1 of *GS4GG Principles & Requirements* (Version 1.2) 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. Section 6.1.1 and 6.1.2 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version 2.0)* Projects are ineligible for carbon crediting under Gold Standard if the ODA assistance is provided to the project under the condition that the credits generated by the Project will be transferred, either directly or indirectly, to the donor country providing ODA support. Project Developer submitting a Project located in a country named by the OECD Development Assistance Committee's ODA recipient list shall sign and submit the ODA Declaration.	PP has provided a declaration of non-use of ODA by the project owner. It is to be noted that the PP has declared that the proposed GS project activity is not registered with any other scheme. The project doesn't fall under any mandatory regulatory requirements in India or the state wherein the project is being implemented. It's a sole voluntary activity. Therefore it also complies with 'GHG Emission Reduction & Sequestration Product Requirements'. By reducing the consumption of fuelwood for cooking in the project boundaries, the project and the VPAs adhere to Principle 1 of Contribution to Climate Security & Sustainable Development. By conducting a safeguarding principle assessment, the project adheres to Principle 2: Safeguarding Principles. By conducting Stakeholder consultation and considering the comments, CME also adheres to Principle 3: Stakeholder Inclusivity. By preparing the VPA-DDs and planning the monitoring reports, the CME also meets the Principle 4: Demonstration of real outcomes. The GS has published GG4GG Community Services Activity Requirements, therefore the proposed project falls under the automatic eligibility list of projects for proving additionality. It is mentioned in the Annex B-Positive list that project activities composed of isolated units where the users of the technology/measure are households, where each unit results in <= 600 MWh of energy savings per year or <=600 tonnes of emission reductions per year (Ref: ER calculation sheet). In this way the project also meets the requirements of Principle 5: Financial Additionality & Ongoing Financial Need. ODA Declaration document /22/ has been checked by the Validation team and found OK. Validation team confirm that VPA is in compliance with the GS4GG requirements.
	(i) **Eligible Greenhouse Gases** Section 4.1.1 of *GS4GG GHG Emissions Reduction & Sequestration Product Requirements (Version2.0)* Only Carbon Dioxide (CO_2), Methane (CH_4) and/or Nitrous Oxide (N_2O) are eligible for Gold Standard crediting, provided Projects comply with Gold Standard Requirements	The project activity only considers the reduction of Carbon Dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O) emissions for Gold Standard crediting. Refer to section B.3 of the VPA-DD /02/ for further details. Validation team confirm that VPA is in compliance with the GS4GG requirements.

and eligibility criteria.	

Eligibility requirements (section 2 and 3) of the applied Community Service Activity Requirements is demonstrated below.

Eligibility Criteria	Justification
2.1.1 All Community Service Activities (CSA – as defined in this document) for which Gold Standard certification is being sought shall fulfil the requirements as set out in this document and those referenced or associated. 2.1.2 All CSA Projects shall lead to climate change mitigation and/or adaptation by providing or improving access to services/resources at the household or community or institution level. Eligible services include electricity and energy, water and sanitation, waste management, housing, etc. 2.1.3 In relation to the above, all Projects shall, therefore, conform to the Principles & Requirements (and associated documents).	The proposed project falls under End-use energy efficiency type as per clause 3.1.1 (b) of GG4GG Community Services Activity Requirements/26/. And fulfils all the set forth requirements and the ICS under the VPAs are distributed to households. During the site visit, the assessment team has confirmed that VPAs involves distribution and installation of efficient cook stoves to households currently cooking with non-renewable biomass on a traditional stove. The implemented project technology reduces the household firewood consumption, by eliminating the need of traditional stove and thereby reduces CO2 emissions. Hence, the VPA meet the eligibility criteria of section 2 of Community Services Activity Requirements version 1.2.
As per clause 3.1.1 of the GS4GG Principles and Requirements document automatic eligibility for a project "if there are Gold Standard published Activity Requirements and/or Gold Standard Approved Methodologies associated with it or as referenced in Gold Standard Product Requirements."	As per clause 3.1.1 of GG4GG Community Services Activity Requirements/26/, types of project eligible are Renewable energy, End-use energy efficiency, waste management & handling and water, sanitation and hygiene projects. The proposed project falls under End-use energy efficiency type as per clause 3.1.1 (b) of GG4GG Community Services Activity Requirements. The Improved Cook Stoves (ICS) of the project activity falls under End-use energy efficiency as per clause 3.1.1 (b), since the Project activities will 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 i.e. individual household users and the physical intervention

		is required at the user end. The VPA is implemented in Karnataka state of India. The same is confirmed through the site visit and the Geo- coordinates as mentioned in the of VPA-DDs /02/. The number of distributed ICS under each VPAs are 15,500 resulting the aggregate annual energy savings less than the threshold limit 180 GWhth as confirmed through the ER calculation sheet. Hence, the VPAs meet the eligibility criteria of section 3 of Community Services Activity Requirements version 1.2.
	3.1.2 Project Area, Boundary and Scale Project Area and Boundary shall be defined in line with the applicable Impact Quantification Methodologies or Product Requirements. The definition of scale is the same for all Projects, except Microscale which is defined as: (a) CSA Project issuing emission reductions less than or equal to 10,000 tCO2eq per annum (b) CSA Project seeking any Gold Standard Certified Impact or Product other than emission reductions and meeting one of the following criteria: (a) Installed capacity less than equal to 2 MWel /6 MWth that employs renewable energy as the primary technology (b) Energy savings at a scale of no more than 20 GWh per year where energy efficiency is the primary activity Achieve GHG emissions reductions at a scale of no more than 20,000 tCO2eq per annum where project activity type is not included in the above two criteria. (c) For the purpose of applying UNFCCC methodologies for quantification of GHG reductions, 'small scale' is defined as in CDM Modalities and Procedures for three projects types; Renewable Energy, Energy Efficiency and Others.	The VPA is implemented in Karnataka state of India. The same is confirmed through the interviews and the geo- coordinates as mentioned in the VPA-DDs /02/. The number of distributed ICS under each VPA is 15,500 resulting the aggregate annual energy savings not exceeding the threshold limit of 180 GWh_{th} as confirmed through the ER calculation sheet. Hence, the VPA meet the eligibility criteria of section 3 of Community Services Activity Requirements version 1.2.
	3.1.3 Certain Impact Quantification methodologies allow projects to account Suppressed Demand scenario when establishing a baseline. In such cases, the application of Suppressed Demand baseline is limited to Small Scale and Microscale Projects. Where a Suppressed Demand baseline is applied, it is not possible to 'stack' Gold Standard Certified Impact Statements or Products as the definition of the baseline may be contradictory.	The concept of suppressed demand has not been used while establishing the baseline, the assessment team has confirmed through the site visit with CME and via document review

	3.1.4 Legal ownership: (a) Projects involving the distribution of a large number of devices for services such as heating, cooking, lighting, electricity generation, water treatment technology such as water filter, etc. shall provide a clear description of the ownership of the Products that are generated under Gold Standard Certification all along the investment chain. In line with the FPIC requirement, the proofs that end-users are aware of and willing to give up their rights on Products shall be provided. (b) The transfer of Product ownership shall be discussed during local stakeholder consultations for projects.	The VPAs involve the distribution of ICS in Karnataka state of India. The assessment team has checked the sales agreement /19/ and confirm that the ownership of the GS VERs would be with the CME. It was also confirmed from the stakeholders interview that the transfer of Product ownership was discussed during local stakeholder consultations.
	It can be concluded that the VPAs will contribute to GHG emission reduction along with direct environmental, social and economic benefits to the users and supporting staff.	
Findings	CAR 03, CAR 10, CAR 11, CAR 12, CL 01 was raised during the validation process, which was subsequently closed.	
Conclusion	The assessment team confirms that VPA-DD contains a transparent and accurate description of the project activity and provides reader a clear understanding of the project activity. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.	

D.3. Application and selection of methodologies and standardized baselines

D.3.1. Application of methodologies and standardized baselines

Means of validation	The VPAs utilizes the CDM methodology “AMS.II.G version 12” (Energy efficiency measures in thermal applications of non-renewable biomass) /09/. Under section B.2 of the VPA DD /02/, project has been assessed for all the applicability conditions of the applied methodology.	
	Eligibility Criteria	Justification
	This methodology comprises efficiency improvements in thermal applications of non-renewable biomass. Examples of applicable technologies and measures include the introduction of high efficiency biomass fired project devices (cookstoves or ovens or dryers) to replace the existing devices and/or energy efficiency improvements in existing biomass fired cookstoves or ovens or dryers.	This 14 VPAs (VPA02 – VPA15) involves dissemination of efficient cookstoves i.e Greenway Jumbo Stove (JS1) having efficiency 38% as verified from the ICS test report/21/ and the sales database/10/ provides evidence for the dissemination in the rural households. Hence this criterion is applicable for this project activity Validation team has checked the technology description from the VPA-DDs /02/, site visit and technical

		specifications/manual of project technology /16/. Validation team has found the eligibility criteria to be met.
	In the case of cookstoves, the methodology is applicable to the introduction of single pot or multi pot portable or in-situ cookstoves with rated efficiency of at least 20 per cent. The Water Boiling Test (WBT) method shall be used to test the efficiency of the cookstove to meet this eligibility requirement, following the requirements indicated in "Data / Parameter table 11" which details the options for testing and certification as well as supporting documentation (e.g. certificate issued by third party or test results) that needs to be presented to the validating DOE.	The disseminated cookstoves were found to be more efficient than the traditional stoves. The thermal efficiency as per the KIRDI test report was found to be 38% /21/. Validation team has checked the technology description from the VPA-DDs /02/, site visit and technical specifications/manual of project technology /16/. Validation team has found the eligibility criteria to be met.
	The aggregate energy saving of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input.	As per energy savings formula: Energy Savings (GWh) = By,savings * NCVbiomass = Bold*(1-ηold/ηnew)* NCVbiomass = 3.83*(1-0.10/0.38)*0.0156 = 0.0441 TJ = 0.012 GWh/household. ER sheet is provided that showing that the annual energy savings of the VPA shall not exceed 180 GWh. The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year from all units/stoves or activity included under the threshold of 600 MWh (thermal). The maximum number of ICS included under the project is given below under the small-scale project limit (Ref: ER calculation sheet) . Hence the eligibility criteria has been met. Validation team confirmed the implementation plan during the remote audit. Validation team has found the eligibility criteria to be met.
	Non-renewable biomass has been in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics.	As per the published articles: i) Energy Sources of Indian Households for Cooking and Lighting, NSSO, Ministry of Statistics and Programme Implementation, Government of India, Report 2012, it was found out that Non-renewable biomass has been in use in the project location since 31 December 1989. The source of information was found credible since it is published by Ministry of Statistics and Programme Implementation, Government of India. The report is a part of the Nation Sample Surveys which have been conducted

		since October 1972. The assessment team also reviewed published research, which shows that India's forest cover declined by ~1% between 1989 to 1997[3]. Further, FAO Forestry Outlook Study states that the gap between wood demand and supply is widening supporting the non-renewability of recent (and future) biomass consumption. The relevant evidences (research paper) specific to the Karnataka state has also been checked and found that reasonable share of firewood exists in the Karnataka region since year 1989 /17/. Further baseline survey undertaken by CME also demonstrates the current use of non-renewable biomass as on date on the project region. The details of surveys are reported in the ER spreadsheet. The efficiency of the stove types used under the VPA will be checked during the verification. Validation team has found the eligibility criteria to be met.
	For cases where the biomass is sourced from renewable sources, the project participants should use a corresponding Type-I methodology	Since the ICS distributed under the VPA will only use the non-renewable biomass, hence this criteria is not applicable. Validation team has found the eligibility criteria to be met.
	The CDM-PDD or CDM-PoA-DD/CPA-DD shall explain the proposed method for distribution of project devices including the method to avoid double counting of emission reductions such as unique identifications of product and end-user locations (e.g. programme logo).	UIDs provided by the PP to the HH was found to be unique for each of the HH user and could be traced form the HH user database provided by the PP/10/. UIDs were listed in the HHs user database for each of the HH user listed. No repetitive entries were observed in the HH user database. The same is verified during the site visit. Validation team has found the eligibility criteria to be met
	The CDM-PDD or CDM-PoA-DD/CPA-DD shall also explain how the proposed procedures prevent double counting of emission reductions, for example to avoid that project stove manufacturers, wholesale providers or others claim credit for emission reductions from the project devices.	The assessment has checked the contract/18/ signed between CME and end-users. One of the clauses is about the right to claim carbon credit. As per the agreement, the rights of claim of carbon credit lies with the CME only. The households concede the rights to the CME. The agreement contains the stove unique ID, date of sale, Name, and address of the end-user with GPS are

[3] FSI,2011 report (Government of India)

		recorded. The same is verified during the site visit and technology specification /16/. Validation team has found the eligibility criteria to be met

It can be concluded by the assessment team that the VPA meets all the applicability criteria established in the methodology. Validation team has verified the same during the site visit.

Findings	No findings raised.
Conclusion	The applied baseline and monitoring methodology and relevant tool are valid and applicable to the project activity. The 4KES confirms that: a) It has critically assessed each applicability condition listed in the selected methodology and the relevant information contained in the PoA-DD against these criteria. b) The selected methodology for the proposed GS project activity is applicable. c) The methodology was found to be in accordance with the applicable requirements in GS4GG requirements. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.3.2. Project boundary, sources and GHGs

Means of validation

As per applied methodology, the project boundary is the physical, geographical site of the efficient devices that utilize biomass. Therefore, the project boundary covers each project ICS location. As the project ICS are spread in Karnataka state, India, the project boundary covers entire Karnataka state where the project ICS are installed. The project ICS installation point is verified from installation database/10/. The project boundary is correctly identified in accordance with the methodology AMS-II.G (Version 12). All greenhouse gas emissions (CO_2) occurring within the proposed project activity boundary because of the implementation of the proposed VPAs have been appropriately addressed in the VPA-DDs.

The emissions accounted from the various sources in the physical boundary of the project activity are as follows:

Source		GHGs	Included?	Justification/Explanation
Baseline scenario	Combustion of non-renewable biomass for cooking	CO_2	Yes	Major source of emission
		CH_4	No	Important source of emission
		N_2O	No	Gas included in the calculations. Emissions factors for fuel in stationery combustion by the IPCC
Project Scenario	Combustion of non-renewable biomass for cooking	CO_2	Yes	Major source of emission
		CH_4	No	Important source of emission
		N_2O	No	Gas included in the calculations. Emissions factors for fuel in stationery combustion by the IPCC

The information was validated during the site visit and found the CME justification OK.

Findings	No finding raised.
Conclusion	The project boundary confirmed during the site visit along with the documentary evidence was found in conformance with the applied baseline methodology. All sources of GHG emissions required by the methodology have been included in the project boundary and are justified in reference to the project activity. There are no project emissions/leakage emissions of any sort which are not addressed by the applied methodology occurring because of the project activity. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.3.3. Baseline scenario

Means of validation	The CME has applied an approved baseline and methodology AMS.II. G version 12/09/ which is approved under CDM programme. This PoA involves the dissemination of Improved Cook Stoves (ICS) which provides access to the clean energy by providing clean cooking solution. The total energy savings per year from the project is 0.012 GWhth which is well below 180 GWhth limit of small-scale project Type II. In the absence of the project the HHs were relying on the less efficient traditional cookstoves. Hence the use of three stone/open fire or conventional three stone stoves for cooking and boiling water by the project stove users is deemed as the realistic pre-project scenario. The traditional biomass remains the main energy source for cooking in rural areas and poor urban clusters. Around two-thirds of households use solid cooking fuels (e.g firewood, crop residue, cow dung cake, and coal/lignite/charcoal) /32/. As per Census of 2011, use of firewood for cooking by households is highest at 49 percent. The proportion of population using solid fuels in India was 55·5% (54·8–56·2) in 2017 and 1·24 million (1·09–1·39) deaths in India in 2017, which were 12·5% of the total deaths, were attributable to air pollution /32/. According to the National Family Health Survey (NFHS) of 2019-20 the penetration of 'Improved stoves' is at 2.3% in rural areas of Karnataka. Further in line with applied methodology AMS-II.G /09/ the baseline scenario is "*Use of fossil fuel to meet the similar thermal energy needs as those provided by the project devices*." The assessment team during remote site visit interview found that users are dependent on firewood to use as fuel for cooking. Therefore, baseline scenario is identified transparently for the VPA. It has been noted that PP has done a pre project survey to access the baseline scenario and quantify the amount of firewood in use prior to the project activity. The results of the report as verified by VVB confirms that users were solely using firewood prior to project. The assessment team has reviewed the VPA-DD in line with the applied methodology and it is confirmed that the PP has correctly identified the baseline scenario. 4KES confirms that the baseline scenario is identified as per the applied methodology. All data parameters are used correctly while estimating the baseline emissions. The baseline scenario represents the most possible scenario in absence of the proposed VPA.
Findings	CL 05 has been raised in this regard and successfully closed. Refer Appendix 4 of this report for more details.
Conclusion	The assessment of the applied baseline suggests that the baseline methodology has been correctly applied and the most appropriate and conservative baseline scenario has been selected: a) All data and values used by the project proponent have been listed and referenced in the PDD indication their sources; b) Relevant documents have been used for the establishment of baseline scenario, interpreted appropriately;

	c) All the relevant national and sectoral policies and circumstances have been considered; d) The applied methodology's applicability has been found in accordance and the baseline identification has been found appropriate by the assessment team. e) Justification has been provided in the VPA-DDs /02/ and found OK. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.3.4. Demonstration of additionality

Means of validation	The additionality of PoA has been determined as per para 4.1.1 of the GS4GG Programme of Activity Requirements (Version 1.2)/26/, as per the guidance as outlined under para 4.1 "The additionality shall be demonstrated at both the PoA and VPA/CPA level, where required, in line with the Principles & Requirements or relevant Activity Requirements. The CME may seek exception by providing convincing justifications validated by Validation/Verification Body (VVB) and approved by Gold Standard as to why demonstration of programme level additionality is appropriate for proposed PoA.". The additionality has been demonstrated at PoA and VPA level, this approach is found to be in line with the para 4.1.1 of the GS4GG Programme of Activity Requirements (Version 1.2)/26/, hence accepted. As per point 4.1.9 of the GS4GG Community Services Activity Requirements Version 1.2 /26/, "Projects that meet any of the following criteria are considered as deemed additional and therefore are not required to prove Financial Additionality at the time of Design Certification": (a) Positive list (Annex B of this document) (b) Projects located in LDC, SIDS, LLDC (c) Microscale projects The assessment team has verified the thermal efficiency certificate/21/ of ICS model included under VPAs & also the corresponding ER calculation sheet, and it is confirmed that the annual energy savings of the ICS to be included under the PoA will always be less than 600 MWhth. The project is type-II project, where the technology units will be distributed to the households. The design thermal output of each unit is 1.5 KW, resulting in annual energy savings of 9.198 MWh which is less than 600MWh of energy savings as stipulated in the above requirement. Hence the project is deemed additional. 4KES can confirm that the VPAs are additional and in compliance with the GS4GG Principle & Requirements, Programme of Activity Requirements and Community Services Activity Requirements /26/.
Findings	No findings raised.
Conclusion	Based on the local and sectoral expertise, the assessment team confirms that the VPA is additional and also fulfil the prior consideration requirement. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.3.5. Sustainable Development Goals (SDG) outcomes

Means of validation	Specific contributions to be determined at VPA level are:

Sustainable Development Goals Targeted	Most relevant SDG Target	SDG Impact Indicator (Proposed or SDG Indicator)

SDG 13: Climate Action (mandatory)	**13.3.** Number of emission reductions achieved by the project	GHG Emissions measured in tons CO_2
SDG 08: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	**8.5.** By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value	Number of Employment generated
SDG 07: Affordable and clean energy	**7.1.** By 2030, double the global rate of improvement in energy efficiency	Number of project households predominantly using clean cooking devices such as Improved Cook Stoves
SDG 05: Gender equality	**5.4.** Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate	Time spent collecting fuelwood from the forests.
SDG 03: Good health and well being	**3.9.** By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	Proportion of households perceiving less often smoke levels

Methodological choice/ approaches for estimating the above-mentioned SDG outcomes are as follows:

Outcomes for SDG 13 (Climate Action) are calculated as follows:

The efficient cookstoves will use less fuelwood for the cooking task and thus reduce GHG emissions compared to the traditional way of cooking. The indicator to monitor the target is the amount of the reduced GHG emissions annually through the project as contribution to a lower greenhouse gas emission development path of India it will contribute to the reduction of the emission of GHG.

The contribution to SDG 13 will be measured through the reduction of the emission of GHG as per the applied methodology AMS II. G version 12. Kindly refer section 3.10 of this report for further details.

The PP has mentioned the contribution of the project towards these SDG's clearly in the VPA-DD. 4KES confirms the technology which is implemented reflects the good practice in the host country also contributing to sustainable development of the host country.

The applied methodology AMS II.G./09/ defines the methodological steps to determine the emission reduction, difference of non-renewable and renewable, leakages and anthropogenic emissions by the proposed project activity.

As per para 24 of methodology ER are calculated as:

$ERy = \Sigma\Sigma ERy,i,j - LEy$

Where:
i= Indices for the situation where more than one type of project device is introduced to replace the pre-project devices
j = Indices for the situation where there is more than one batch of project device
ERy = Emission reductions during year y in t CO2e
ER y,i,j=Emission reductions by project device of type i and batch j during year y in t CO2e
LEy=Leakage emissions in the year y

The emission reductions for the households cookstoves are calculated using following equation: $ERy,i,j=By,savings,i,j\times Ny,i,j\times \mu y\times fNRB,y\times NCVbiomass\times EFprojected_fossil\ fuel$

Where: $By,savings,i,j$	=	Quantity of woody biomass that is saved in tonnes per cookstove device of type *i* and batch *j* during year *y*
$fNRB,y$	=	Fraction of woody biomass that can be established as non-renewable biomass (fNRB)
$NCVbiomass$	=	Net calorific value of the non-renewable woody biomass that is substituted (IPCC default for wood fuel, 0.0156 TJ/tonne, based on the gross weight of the wood that is 'air-dried')
$EFprojected_fossilfuel$	=	Emission factor for the fossil fuels projected to be used for substitution of non-renewable woody biomass by similar consumers. Use a value of 64.40 t CO2/TJ
Ny,i,j	=	Number of project devices of type *i* and batch *j* operating during year *y*
μy	=	Adjustment to account for any continued use of pre-project devices during the year *y* when applying equations 6 and 8 (fraction). Use 1.0 in other cases

By,savings (Quantity of woody biomass that is saved) is determined using option 3 of the methodology as below:
$By,savings,i,j=Bold,i,j\times(1-\eta old,i,j\eta new,i,j)$

Annual quantity of woody biomass that would have been used in the absence of the project activity to generate useful thermal energy equivalent to that provided by the project device type i and batch j (Bold,i,j) is determined ex-ante to be 3.83 ton/household/year as per baseline survey /10/.
Efficiency of pre-project device (nold) is taken 10% default value as per applied methodology /08/. Efficiency of project device (nnew) is taken 38% as per test report from KIRDI /21/.

Number of project devices of type i and batch j operating during year y shall be monitored and ex-ante considered to be 15,500. Fraction of woody biomass that can be established as non-renewable biomass (fNRB) is calculated as per methodological tool referred by the methodology /08/.
Based on the calculations and results presented in the sections above the implementation of the project activity will result in an average ex-ante estimation of emission reduction conservatively calculated to be 39,126 tCO_2e per year. The calculation of the emission reductions has been ensured by the validation team based on the VER calculation sheet, version 03.2. The emission reductions estimation is verified by the assessment team through the VER calculation sheet and can be replicated using the data and parameter values provided in the VPA-DD and supporting file submitted for registration. The data sources mentioned have been verified by the assessment team and confirms that the estimates provided in the final VPA-DD are reasonable and the project participant has correctly applied the methodology; the calculations are complete and transparent.

Outcomes for SDG 8 (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all) are calculated as follows:

The project generates employment and hence addresses the SDG 08. The project aims to provide 15 employments/VPA annually for the men and women including for young people and persons with disabilities, and equal pay for work of equal value. The generation of employment was confirmed at the time of site visit and found appropriate.

Outcomes for SDG 7 (Affordable and clean energy) are calculated as follows:

As the project involves access to the affordable energy to the rural households, it ensures replacement of fossil fuel based cookstoves with an efficient biomass based cookstove. The project is designed to provide cleaner, safer, more affordable and more efficient cooking equipment than traditional stoves to poor household by means of carbon finance. The indicator to monitor the access to affordable and clean energy is the increase in number of households using clean cooking devices such as Improved Cook Stoves.

The Number of ICS disseminated under this VPA is 15,500. The number of installations that will be assessed through the installation database maintained and can be verified through the survey at the time of validation.

Outcomes for SDG 5 (Gender Equality) are calculated as follows:

The project will employ local women and distribute stoves to vulnerable communities. The project does not reduce or put at risk women's access to or control of resources, entitlements, and benefits. On the contrary, the project will have many benefits for women. The implemented project technology reduces the household firewood consumption, by eliminating the need of traditional the 3-stone fire stoves for cooking and thereby reducing the burden on women for “unpaid domestic work”. The VPA reduce time burden of cooking and collecting firewood, which falls disproportionately on women and the saved time can be used for the other activities.

The stoves are distributed to the households with the help of women self-help groups. Women are educated on the benefits of improved stoves and they are further involved in the knowledge transfer and promotion of the improved cookstoves to the households. This is possible only when they have spare time for attending the trainings and participating in the discussions and then finally disseminating knowledge to the end-users. Hence this project equally promotes women to take part in the activities apart from only collecting wood and cooking food and hence it leads to promotion of gender equality.

The overall reduction in time spent collecting firewood by the project activity is calculated as follows:

$TR_y = (T_{b,y} - T_{p,y}) / T_{b,y}$

Where:

T_{ry} = Total reduction time spent collecting firewood and cooking for project activity in year y (%)

$T_{b,y}$ = Time spent collecting firewood and cooking per household per day prior to project (hours)

$T_{p,y}$ = Time spent collecting firewood and cooking per household per day in project (hours)

Outcomes for SDG 3 (Good Health and Wellbeing)

The assessment team has confirmed during the site visit and through document review that the VPA includes the distribution of fuel-efficient cookstove technologies to replace the inefficient baseline cookstoves and thus result in reduction in firewood consumption. The reduction of the firewood consumption is usually associated with reduced smoke, which can lessen exposure to dangerous indoor air pollution of especially the women and girls responsible of the cooking activities. As lower respiratory infection is one of the main causes of death and disability it can be inferred that a reduction in firewood consumption will be beneficial to the health of stove users.

Therefore, the VPA contributes towards the SDG 3 target to “substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and

contamination.
The households with improved in-air quality by the project activity is calculated by:
Sless smoke=Sinstall x HHless smoke,y x Up,y
Where,
Sless smoke = Number of households with improved in-air quality
Sinstall = Number of stoves disseminated under the specific VPA
HHless smoke,y= Share of households confirming less smoke through improved stove
Up,y = Usage rate in year y

Validation team has checked the formula used and found in compliance with the applied methodology /08/. Hence the same is found OK.

Validation team has checked the ex-ante estimation of SDG impact under section B.6.3 of the VPA-DDs /02/ and found OK.

The summary of ex-ante estimation of each SDG outcome is as follows:

SDG 13: **Amount of GHGs emissions avoided or sequestered (tCO2e)**

Year	Baseline estimate	Project estimate	Net benefit
Year 1	39,126	0	39,126
Year 2	39,126	0	39,126
Year 3	39,126	0	39,126
Year 4	39,126	0	39,126
Year 5	39,126	0	39,126
Total	195,630	0	195,630
Total number of crediting years	5		
Annual average over the crediting period	39,126	0	39,126

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Number of Employment):

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0 employment	15 employment	15 employment
Year 2	0 employment	15 employment	15 employment
Year 3	0 employment	15 employment	15 employment
Year 4	0 employment	15 employment	15 employment

Year 5	0 employment	15 employment	15 employment
Total	0 employment	15 employment	15 employment
Total number of crediting years	5		
Annual average over the crediting period	0	15 employment	15 employment

SDG 7: Proportion of population with primary reliance on clean fuels and technology

Year	Baseline estimate	Project estimate	Net benefit
Year 1	0 (No ICS being used for cooking)	15,500 ICS will be distributed	15,500
Year 2	0	15,500	15,500
Year 3	0	15,500	15,500
Year 4	0	15,500	15,500
Year 5	0	15,500	15,500
Total	0	15,500	15,500
Total number of crediting years	5		
Annual average over the crediting period	0	15,500	15,500

SDG 5: Average time saving associated with cooking time and fuel collection (hours)

Year	Baseline estimate	Project estimate	Net benefit
Year 1	3.86 hours collecting firewood	2.71 hours collecting firewood	1.15 hours saved
Year 2	3.86 hrs	2.71 hrs	1.15 hours saved
Year 3	3.86 hrs	2.71 hrs	1.15 hours saved
Year 4	3.86 hrs	2.71 hrs	1.15 hours saved
Year 5	3.86 hrs	2.71 hrs	1.15 hours saved

Total	3.86 hrs	2.71 hrs	1.15 hours saved
Total number of crediting years	5		
Annual average over the crediting period	3.86 hrs	2.71 hrs	1.15 hours saved

SDG 3: Proportion of users that perceive a reduction in smoke levels (%)

Year	Baseline estimate	Project estimate	Net benefit
Year 1	100%	30%	70% decrease in household smoke
Year 1	100%	30%	70% decrease in household smoke
Year 1	100%	30%	70% decrease in household smoke
Year 1	100%	30%	70% decrease in household smoke
Year 1	100%	30%	70% decrease in household smoke
Total	100%	30%	70% decrease in household smoke
Total number of crediting years	5		
Annual average over the crediting period	100%	30%	70% decrease in household smoke

The details ER calculation is demonstrated in the separate ER spreadsheet /04/ by the CME and validated by the validation team with respect to correctness of all parameters and their sources.

Findings

CL 03, CAR 05, CAR 06, CAR 07 has been raised in this regard and successfully closed. Refer Appendix-4 of this report for more details.

Conclusion

The assessment team confirms that:

a) The selection of the equations of the applied methodology is appropriate.

b) The assumptions used by the project have been clearly referenced and listed in the VPA-DDs /02/.

c) The data included in the VPA-DDs has been adopted from authentic sources based on appropriate assumptions.

d) Appropriate values are reasonably used relating to the project activity.

e) The baseline methodology has been correctly applied for the calculation of emission reductions.

f) The calculations are traceable and the values can be replicated using the data provided in the VPA-DDs.

	The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that the SDGs chosen by 14 VPAs (VPA 02-VPA15) correctly determine all the SDGs impacts and sufficiently meets all the requirements of Gold Standard.

D.3.6. Monitoring of SDGs

Means of validation

The monitoring plan for VPA is provided in Section B.7 of the VPA-DDs /02/, based on the approved monitoring methodology. The monitoring plan is being correctly applied to the project activity and is in compliance with the requirements of the applied methodology.

Parameters available at the time of validation (ex-ante) are:

Parameter 1:

Relevant SDG Indicator	**SDG13**
Parameter	$NCV_{biomass}$
Description	Net calorific value of the non-renewable woody biomass that is substituted
Source of data	Approved methodology AMS II.G/v12
Value	0.0156 TJ/tonne
Source/ Justification	The value mentioned in the VPA-DD was cross-checked from the IPCC default value /20/ (on page 1.19) and was found to be correct.

Parameter 2:

Relevant SDG Indicator	**SDG13**
Parameter	$B_{old,HH}$
Description	Quantity of woody biomass used per HH in the absence of the project activity
Source of data	Baseline Survey
Value	3.83 Tonnes/household/year
Source/ Justification	The value mentioned in the ER sheet/04/ was found to be consistent with the value mentioned in the baseline survey report/11/.

Parameter 3:

Relevant SDG Indicator	**SDG13**
Parameter	η_{old}
Description	Efficiency of the system being replaced (traditional cooking stoves). The cookstoves are designed for using wood as fuel and is not compatible with charcoal
Source of data	Approved methodology AMS II.G/v12
Value	10%
Source/ Justification	As per the project description the ICS would only be disseminated to HHs using traditional stoves, this was also verified during the site visit by the assessment team. Therefore, value mentioned in the baseline survey sheet /11/ was cross-checked from the applied methodology/09/ and was found to be correct and consistent.

Parameter 4:

Relevant SDG Indicator	**SDG13**
Parameter	fNRB,y
Description	Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass
Source of data	State of forest report 2019
Value	93.66%
Source/ Justification	The fNRB value is calculated and found to be 93.66% in the fNRB sheet. The CME has used the recent data from various sources and demonstrated in the spreadsheet in accordance with "Calculation of the fraction of non-renewable biomass", version 03 and the applied methodology/09/.

Parameter 5:

Relevant SDG Indicator	**SDG13**
Parameter	EFprojected_fossilfuel
Description	Emission factor for the substitution of non-renewable woody biomass by similar consumers.
Source of data	Approved methodology AMS II.G/v12
Value	64.40 tCO_2/TJ
Source/ Justification	The value mentioned in the VPA-DD was cross-checked with the default value mentioned in the applied methodology AMS-II.G./09/ and was found to be correct.

Parameter 6:

Relevant SDG Indicator	**SDG13**
Parameter	LEy
Description	Net to Gross adjustment factor
Source of data	Approved methodology AMS II.G/v12
Value	0.95
Source/ Justification	Default value has been applied as per the methodology /09/

Parameter 7:

Relevant SDG Indicator	**SDG13**
Parameter	$S_{install}$
Description	Number of stoves installed
Source of data	CME Database

Value	15,500
Source/ Justification	Number of ICS distributed under the VPAs

Parameters that will be monitored (ex-post) are:

Relevant SDG Indicator	Parameter	Description	Source of data	Value	Validation opinion
SDG 13	$N_{y,i,a}$	Number of project devices of type i and age a that are operating in year y	Annual ICS users' survey	15500	The number of project devices installed will be monitored annually through the monitoring survey conducted by the CME. *"As per the requirements of the para48 of the applied methodology/09/ "A statistically valid sample of the locations where the devices are deployed, with consideration, in the sampling design, of occupancy and demographic differences can be used to determine parameter values used to calculate emission reductions, as per the relevant requirements for sampling in the "Standard for sampling and surveys for CDM project activities and programmes of activities"/27/. When biennial inspection is chosen a 95 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampling parameter. On the other hand, when the project proponent chooses to inspect annually, a 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters. In cases*

						where survey results indicate that 90/10 precision or 95/10 precision are not achieved, the lower bound of the 90 per cent or 95 per cent confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 90/10 or 95/10 precision". The monitoring frequency is in-line with the applied methodology/08/.
	SDG 13	$\eta_{new,i,j}$	Efficiency of the device (Stove) of each type i and batch j implemented as part of the project activity	WBT Sample results/ default schedule of linear decrease in efficiency up to the terminal efficiency of 20% per para 37(a) of AMS II G ver 12	Initial efficiency of this type of stoves is 38% as tested by KIRDI for ex-ante ERs calculation	The efficiency of the stoves deployed will be monitored annually and through WBT tests/ default schedule of linear decrease in efficiency up to the terminal efficiency of 20% per para 37(a) of AMS II G ver 12/09/, as per the applied methodology/9/. The initial efficiency of the stove was found to be 38%/21/. Also, PP has kept the provision in case efficiency could not be monitored by the PP then as per para 37(a) of the applied methodology a default schedule of linear decrease in efficiency up to the terminal efficiency assumed as 20 per cent shall be applied through the 7 years (life span of the project device). So, as per the 38% commissioning efficiency a linear decrease of 2.6% will be applied each year. *As per the requirements of the para48 of the applied methodology "A statistically valid sample of the locations*

						where the devices are deployed, with consideration, in the sampling design, of occupancy and demographic differences can be used to determine parameter values used to calculate emission reductions, as per the relevant requirements for sampling in the "Standard for sampling and surveys for CDM project activities and programmes of activities"/27/. When biennial inspection is chosen a 95 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampling parameter. On the other hand, when the project proponent chooses to inspect annually, a 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters. In cases where survey results indicate that 90/10 precision or 95/10 precision are not achieved, the lower bound of the 90 per cent or 95 per cent confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 90/10 or 95/10 precision Since the approach is in line to the applied methodology it was accepted by the assessment team.
	SDG 13	μ_y	Adjustment to account for any continued use of pre-project devices	When applying equations 6 and 8, it is a fraction based on monitoring results. In other cases	1.000	The number of stoves still operating will be determined based on ICS distribution database and Sample Survey Records. The surveys would capture

				during the year y	(i.e. applying equations 3, 5 and 7), use 1.0		information related to cooking habits and stove usage of the region. The total number of pre project operational stoves shall be calculated as the fraction of stoves of type I found operational in the sampling survey multiplied by the main equation of ER calculation as an adjustment factor. *As per the requirements of the para48 of the applied methodology "A statistically valid sample of the locations where the devices are deployed, with consideration, in the sampling design, of occupancy and demographic differences can be used to determine parameter values used to calculate emission reductions, as per the relevant requirements for sampling in the "Standard for sampling and surveys for CDM project activities and programmes of activities"/27/. When biennial inspection is chosen a 95 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampling parameter. On the other hand, when the project proponent chooses to inspect annually, a 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters. In cases where survey results indicate that 90/10 precision or 95/10 precision are not achieved, the lower*

						bound of the 90 per cent or 95 per cent confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 90/10 or 95/10 precision. The CME confirmed through interviews that the monitoring will be done once in two years.
	SDG 13	Life Span	The operating lifetime of the project device. The life span should be reported in case where the PP are opting to account the efficiency loss as per paragraph 37.	Manufacturer (certified by a national standards body or an appropriate certifying agent recognized by that body)	7 years	The value is taken from Manufacturer (certified by a national standards body or an appropriate certifying agent recognized by that body) for specific ICS type. The parameter will be recorded at the time of commissioning/distribution. Hence, it was found to be acceptable by the validation team
	SDG 13	Date of commissioning of project device i	Actual date of commissioning of the project device	Internal records	To be monitored	The date will be checked from the Distribution record of ICS as verified during the site visit. It will be recorded at the time of commissioning/distribution of ICS as verified from the site visit.
	SDG 13	$N_{d,HH}$	Number of project devices distributed per household	Internal records	1	The parameter will be monitored annually and accessed through user's interviews during the ICS User Survey. The Annual ICS User Survey will be conducted following the Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4)/27/.
	SDG 03	Air Quality	Users' perception on smoke reduction and Incidence of	Sampling Surveys/ Annual usage survey/Monitoring survey	70% decrease in household smoke	The parameter will be monitored annually and accessed through user's interviews during the ICS User Survey.

				disease: perceived smoke levels, incidence of coughing, incidence of respiratory illness, Incidence of itchy eyes			*As per the requirements of the para48 of the applied methodology/09/ "A statistically valid sample of the locations where the devices are deployed, with consideration, in the sampling design, of occupancy and demographic differences can be used to determine parameter values used to calculate emission reductions, as per the relevant requirements for sampling in the "Standard for sampling and surveys for CDM project activities and programmes of activities"/27/. When biennial inspection is chosen a 95 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampling parameter. On the other hand, when the project proponent chooses to inspect annually, a 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters. In cases where survey results indicate that 90/10 precision or 95/10 precision are not achieved, the lower bound of the 90 per cent or 95 per cent confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 90/10 or 95/10 precision* The Annual ICS User Survey will be conducted following the Guidelines for Sampling and Surveys

						for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4)/26/.
	SDG 05	Gender Equality: Number of Hours	Time Saving per household in collecting fuelwood	Monitoring Survey	1.15	The parameter will be monitored annually and accessed through user's interviews during the ICS User Survey. *As per the requirements of the para48 of the applied methodology/09/ "A statistically valid sample of the locations where the devices are deployed, with consideration, in the sampling design, of occupancy and demographic differences can be used to determine parameter values used to calculate emission reductions, as per the relevant requirements for sampling in the "Standard for sampling and surveys for CDM project activities and programmes of activities"/27/. When biennial inspection is chosen a 95 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampling parameter. On the other hand, when the project proponent chooses to inspect annually, a 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters. In cases where survey results indicate that 90/10 precision or 95/10 precision are not achieved, the lower bound of the 90 per cent or 95 per cent confidence interval of the parameter value*

					may be chosen as an alternative to repeating the survey efforts to achieve the 90/10 or 95/10 precision The Annual ICS User Survey will be conducted following the Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4)/27/.
SDG 07	Access to affordable and improved energy services	Number of ICS under the project	Commissioning records	15,500	The parameter will be monitored annually and accessed through user's interviews during the ICS User Survey. The Annual ICS User Survey will be conducted following the Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4)/27/.
SDG 08	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Number of employments generated (Ne)	Employment records	15	The parameter will be monitored annually and accessed through user's interviews during the ICS User Survey. The Annual ICS User Survey will be conducted following the Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4)/27/.

It can be concluded that the monitoring plan has provisions for the real measurement of the parameter to reach to the achieved emission reductions.

After an intensive document review of the VPA-DDs and site visit assessment by interviews with representatives about the monitoring procedures and structure, the validation team confirms that verification of emission reductions would be feasible. Also quality assurance and quality control procedures identified in the VPA-DDs will lead to accuracy and lesser uncertainty.

Sampling Plan:

The CME will follow sampling procedures of "Standard of sampling and surveys for CDM project activities and programme of activities" and AMS-II.G. version 12 /09/ for determining the sample size of each parameter.

The objective of the sampling plan is to achieve unbiased and reliable estimates of the

proportion or the mean value of the key variables over the crediting period. As per the sampling and survey standard V 09.0 in case "*where there is no specific guidance in the applicable methodology, project proponents shall use 90/10 confidence/precision as the criteria for reliability of sampling efforts for small-scale project activities and 95/10 for large scale project activities.*" The methodology applied for the project (AMS.II.G version 12/para 48)/09/ requires the project proponent achieving 95 percent confidence interval and a 10 percent margin of error for biennial inspection while for annual inspection 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters.

The requirement mentioned in paragraph 22 of Sampling & Surveys Standard states that, parameter values shall be estimated by sampling in accordance with the requirements in the applied CDM methodologies separately and independently for each of the CPAs included in the PoA except when a single sampling plan covering a group of CPAs is undertaken applying 95/10 confidence/precision for the sample size calculation.
The table below provides the monitoring parameters that will be monitored annually:

Parameter	Type	Description
$N_{y,i}$	Proportional parameter	Number of project devices (cookstoves) of type *i* and operating in year *y (this also accounts the baseline stoves that are still in use)*
μ_y	Proportional parameter	Adjustment to account for any continued use of pre-project devices during the year y
$\eta_{new,i,j}$	Mean value parameter	Efficiency of the device (cookstoves) of type i being deployed as part of the project activity

i. **Target Population:** The target population for different parameters discussed in the table above are given below:

- For the proportional parameter; the target population is the ICS users listed in the project database.
- For the mean value parameter; the target population is the total number of operational ICS for which the emission reductions will be accounted for the monitoring period in question. The mean value parameter, unless and otherwise required by the estimated number of samples (if it is greater than the sample estimate for the proportional parameter) will be the subset of the operational ICS as identified during the annual monitoring surveys.

ii. **Sampling frame:** All the households availed with the improved cooking stoves by the project will be the sampling frame.

iii. **Sampling Method:** A simple random sampling will be adopted for estimating the sample size for the monitoring surveys. Simple random sampling is suited to populations that are homogenous (EB 94 annex 02). From the population of ICS, the random numbers will be assigned for each ICS using excel function and the sample ICS will be extracted accordingly.

iv. **Sample Size:** The calculation of the required sample size for each parameter will be calculated at 90/10 confidence/precision as required for the annual monitoring. The sample size is determined using the Guidelines for Sampling and Surveys for CDM

Project activities and Programme of Activities Ver. 4.0 (EB86, Annex 4)[4]. As required by AMS II.G Ver 12, for annual surveys, the level of precision of 10% and a confidence level of 90% will be assessed for the monitoring parameters; efficiency of ICS, number of ICS in operation and displacement of traditional stoves.

As per the requirements of the para48 of the applied methodology "A statistically valid sample of the locations where the devices are deployed, with consideration, in the sampling design, of occupancy and demographic differences can be used to determine parameter values used to calculate emission reductions, as per the relevant requirements for sampling in the "Standard for sampling and surveys for CDM project activities and programmes of activities". When biennial inspection is chosen a 95 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampling parameter. On the other hand, when the project proponent chooses to inspect annually, a 90 per cent confidence interval and a 10 per cent margin of error shall be achieved for the sampled parameters. In cases where survey results indicate that 90/10 precision or 95/10 precision are not achieved, the lower bound of the 90 per cent or 95 per cent confidence interval of the parameter value may be chosen as an alternative to repeating the survey efforts to achieve the 90/10 or 95/10 precision. Hence the sampling is inline with the applied methodology.

The minimum sample size to determine number of ICS in operation and displacement of tradition stoves using the procedure outlined in para 12 of appendix 1, EB 86 Annex 4, Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0.

$$n \geq \frac{1.645^2 N \times p(1-p)}{(N-1) \times 0.1^2 \times p^2 + 1.645^2 p(1-p)}$$

Where:
n= Sample size
N = Total number of ICS of type *i* installed under the project
p = expected proportion (0.5)[5]
1.645 = represents the 90% confidence required
0.1 = represents the 10% relative precision (0.1x0.5=0.05 = 5% points either side of p)

Substituting the values of "*N*" in equation above, the sample size will be deducted.

The sampling approach undertaken by CME is duly explained under section B.7.2 of the VPA-DD/02/, which has been assessed by the validation team and found to be correct and in-line to the standard/25/.

General Requirements for Quality Assurance and Quality Control

i. The project developer is responsible for accurate and transparent record keeping, monitoring and evaluation. All supporting documentation and records for the project must be easily accessible for spot checking and cross referencing by a third-party

[4]Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB 86, Annex 4)

[5]The expected proportion has been taken as 0.5 for the first monitoring period. For the successive monitoring periods, the sample size will be deducted in accordance with the monitoring results of the first monitoring period.

	auditor. ii. Contact information in the total distribution record shall allow a project auditor to easily contact and visit end users. iii. An auditor must be able to cross reference pertinent project documentation, including archives such as production records (e.g., materials purchases, internal logs), financial accounts and sales records, as well as wholesale customer invoices, observations of retailer activities and sales performance.
Findings	CAR 02, CAR 13, CAR 14, CAR 15, CAR 16, CAR 17, is raised and successfully closed. Refer Appendix 4 of this report for more details.
Conclusion	The assessment team confirms that the monitoring plan: a) Is in compliance with the requirements stated in the applied approved monitoring methodology /09/. b) Is feasible and can be implemented in the case of the project activity c) Can be implemented by the VPA Implementer. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.4. Start date, crediting period type and duration

Means of validation

The start date of the VPA has been considered as the date of first installation ICS stove to end-users for each VPAs respectively. Validation team has checked the 1st end user Invoice /19/ and found the mentioned start date correct.

VPA	Start date
VPA 02	31/08/2020
VPA 03	01/10/2020
VPA 04	31/10/2020
VPA 05	15/12/2020
VPA 06	18/01/2021
VPA 07	12/02/2021
VPA 08	24/03/2021
VPA 09	02/09/2021
VPA 10	27/09/2021
VPA 11	19/10/2021
VPA 12	20/11/2021
VPA 13	20/12/2021
VPA 14	21/01/2022
VPA 15	01/03/2022

PP has chosen a renewable crediting period of 5 years which is renewable two times. The crediting period start date of the project activity has been considered as based on the first distribution date under the VPA, which is found acceptable.

VPA	Crediting Period Start date
VPA 02	03/11/2020

	VPA 03	03/11/2020
	VPA 04	03/11/2020
	VPA 05	15/12/2020
	VPA 06	18/01/2021
	VPA 07	12/02/2021
	VPA 08	24/03/2021
	VPA 09	02/09/2021
	VPA 10	2709/2021
	VPA 11	19/10/2021
	VPA 12	20/11/2021
	VPA 13	20/12/2021
	VPA 14	21/01/2022
	VPA 15	01/03/2022

Findings	CL 02, CAR 04, CAR 09 has been raised in this regard and successfully closed. Refer Appendix-4 of this report for more details.
Conclusion	Validation team confirm that start date and crediting period start date have been chosen correctly according to the GS4GG requirements. Also the chosen crediting period is as per the GS4GG requirements. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.5. Local stakeholder consultation

Means of validation	The Local Stakeholder meeting was conducted both physically as well in an online mode. The invitations were sent out on email and the newspaper advertisements in English and local language (Gujarati) were published on 17/06/2020 at PoA level. The meeting also conducted at VPA level at Karnataka, wherein the ICSs are distributed, the details are mentioned in the stakeholder consultation report submitted. This ensured that the project adhered to the criteria of giving one-month notice to stakeholders invited. For those who cannot attend the physical local stakeholder consultation meeting, an online link for joining was arranged. The advertisement material signed and stamped by the CME on the company letterhead has been included in this document. The local stakeholder consultation meeting was organized on 18/07/2020 at the venue Greenway Grameen Infra Pvt. Ltd, 23/A, GIDC Manjusar, Savli Road, Vadodara, Gujarat 371775 at PoA level. The meeting also conducted at VPA level at Karnataka, wherein the ICSs are distributed, the details are mentioned in the stakeholder consultation report submitted. The meeting was organized informally in order to encourage participants post their views on the project more openly and without hesitation of protocol. Due to the prevailing COVID-19 situation, stakeholders also joined using online modes. Most of the participants attending the meeting were women which were local beneficiary of the project. The method for inviting the local stakeholders involved announcement in the local and national newspapers, over email, as well as delivery by hand. This was to ensure that all categories of stakeholders are reached including those without the means of internet/email. And for those who cannot attend the physical local stakeholder consultation meeting, an online link for joining was arranged. To further strengthen the stakeholder engagement during project implementation, additional state-level physical consultations for local stakeholders were also

	organized by the CME. The physical meetings were conducted on 07/12/2020 in Kolar and on 11/01/2021 in Tumkur district in Karnataka state respectively/23/. All the relevant local stakeholders were invited through public notice, telephone calls and personal invitations to attend the meeting. The local stakeholders meeting was attended by local persons including local villagers, local vendors, and technology suppliers. The stakeholders identified by the project participant were local villagers who are the major population of the particular area, local communities and gram panchayat (Village head), CME representatives. The Stakeholder Feedback Round (SFR) was organized between 26th November 2020 and 27th April 2021. This was a public consultation on the project conducted via greenway website - https://www.greenwayappliances.com, where project documents were made available from 26/11/2020 to 27/04/2021 (4-month period). The email invitations for the feedback round were also sent to the persons/groups who had been originally invited for the 1st LSC meeting dated 18/07/2020. The local stakeholders meeting at the VPA level were also taken into account while inviting the feedbacks. As discussed with CME, no comments have been received. Validation team has verified the LSC and SFR process during the site visit, LSC documents /23/, SCR /23/ and found in compliance with GS requirements.
Findings	CL 04, CAR 01 has been raised in this regard and successfully closed. Refer Appendix-4 of this report for more details.
Conclusion	The remote audit interview with the stakeholder was undertaken and it can be confirmed that the project proponent takes into account the feedback of local people and no negative comments were received for the project activity. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

D.6. Safeguarding Principles Assessment

Means of validation

CME has done the safeguarding principles assessment analysis and presented assessment in the VPA-DDs /02/. The assessment has been performed in accordance to requirements prescribed in the GS4GG Principles & Requirements, Version 1.2 & Safeguarding Principles & Requirements, Version 1.2.
Safeguarding principles assessment is conducted at PoA level is justified and appropriate. Mitigation measures with reference to the monitoring of safeguarding principles is provided under section C.1 of VPA-DDs.

The detailed assessment of safeguarding principle is provided below:

Assessment Questions/ Requirements	Justification of Relevance (Yes/potentially /no)	How Project will achieve Requirements through design, management or risk mitigation.	Mitigation Measures added to the Monitoring Plan (if required)	VVB Assessment
Principle 1. Human Rights				
1. The Project Developer and	No	Not relevant	No mitigatio	The justification provided by CME/VPA

		the Project shall respect internationally proclaimed human rights and shall not be complicit in violence or human rights abuses of any kind as defined in the Universal Declaration of Human Rights 2. The Project shall not discriminate with regards to participation and inclusion	No	1. The constitution of host country (India) considers it a legal offence to violate human rights during any business activity. India endorses the United Nations Guiding Principles (UNGPs) on Business and Human Rights adopted in the UN Human Rights Council (UNHRC) in 2011. The CME complies with the legal requirements of the host country. This is not violated at any point during the project. 2. The targeted segment for facilitating improved cooking under this project is the rural household of India. The economically backward	n required. No mitigation required.	Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.

			and marginalized, who form a majority of these households, will witness enhanced opportunities for participation in this programme, as this project by scaling up will reach areas where improved cooking solutions were previously unaffordable.		
	Principle 2. Gender Equality				
	1. The Project shall not directly or indirectly lead to/contribute to adverse impacts on gender equality and/or the situation of women. 2. Projects shall apply the principles of non-discrimination, equal treatment, and equal pay for equal work.	No No	1. Not relevant 2. No, the project doesn't directly or indirectly lead to/contribute to adverse impacts on gender equality. In contrast, the project will contribute to health and well-being of women. Moreover, the project will deploy adequate measures to foster social status of	No mitigation required. No mitigation required.	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.

	3. The Project shall refer to the country's national gender strategy or equivalent national commitment to aid in assessing gender risks. 4. (where required) Summary of opinions and recommendations of an Expert Stakeholder(s)	No No	women. 3. The project shall embrace the spirit of the Indian Labour Regulations and ILO guidelines. The project does apply the principles of non-discrimination and equal treatment in the production, distribution and the usage of the products. The CME also ensures equal pay for equal work during any activity in the project. 4. The project developer abides by the National Gender Policy of India enshrined in the Constitution of India. It has a powerful mandate for equality and rights of women. India has endorsed the SDG 2030	No mitigation required. No mitigation required.	

			Agenda as well. The project developer recognises and respects these commitments in the course of the project as well. There are no specific gender risks identified during the project design. Howsoever, if any assessment is required to frame gender risks associated with the project, the project participant ensures its full commitment to do so. Not required.		
	Principle 3. Community Health, Safety and Working Conditions				
	1. The Project shall avoid community exposure to increased health risks and shall not adversely affect the health of the workers and the community	No	Not relevant Dissemination activity under the project doesn't involve any activity that triggers safety requirements. On the contrary the project is expected to	Workplace Health & Safety trainings conducted during the project operation	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote

			alleviate existing health risks due to indoor pollution		interviews by the validation team and found correct.
	Principle 4.1 Sites of Cultural and Historical Heritage				
	Does the Project Area include sites, structures, or objects with historical, cultural, artistic, traditional, or religious values or intangible forms of culture?	No	Not relevant The project units will be simple and small in dimension. The project will not result in any change in cooking habits because of substitution of fuel. Therefore, the result of this project won't damage or remove cultural heritage, since the project is implemented in the households of families.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 4.2 Forced Eviction and Displacement				

	Does the Project require or cause the physical or economic relocation of peoples (temporary or permanent, full or partial)?	No	Not relevant	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 4.3 Land Tenure and Other Rights				

	a. Does the Project require any change, or have any uncertainties related to land tenure arrangements and/or access rights, usage rights or land ownership? b. For Projects involving land use tenure, are there any uncertainties with regards to land tenure, access rights, usage rights or land ownership?	No	Not relevant. The project does not involve any land tenure arrangements and/or other rights.	No mitigation required	Th The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 4.4 - Indigenous people				

	Are indigenous peoples present in or within the area of influence of the Project and/or is the Project located on land/territory claimed by indigenous peoples?	No	Not relevant. The project does not involve any land tenure arrangements and/or other rights.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 5. Corruption				
	1. The Project shall not involve, be complicit in or inadvertently contribute to or reinforce corruption or	No	There are strict internal policies of Greenway which prohibit any kind of corruption at individual or	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA

	corrupt Projects		organizational level.		Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 6.1 Labour Rights				
	1. The Project Developer shall ensure that all employment is in compliance with national labour occupational health and safety laws and with the principles and standards embodied in the ILO fundamental conventions.	No	Not relevant 1. India has ratified 6 out of the 8 core ILO conventions including relating to abolition of forced labour, equal remuneration and no discrimination between men and women in employment and occupation.	No mitigation measures required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	2. Workers shall be able to establish and join labour organisations.	No	2. Factories Act 1948 & Inter-State Migrant Workers Act 1979 ensure the basic rights of workers are met. The project developer and its partner comply with the national labour regulations	No mitigation measures required	
	3. Working agreements with all individual workers shall be documented and implemented and include: a) Working hours (must not exceed 48 hours per week on a	No			

	regular basis), AND b) Duties and tasks, AND c) Remuneration (must include provision for payment of overtime), AND d) Modalities on health insurance, AND e) Modalities on termination of the contract with provision for voluntary resignation by employee, AND f) Provision for annual leave of not less than 10 days per year, not including sick and casual leave. 4. No child labour is allowed (Exceptions for children working on their families' property requires an Expert Stakeholder opinion) 5. The Project Developer shall ensure the use of appropriate equipment,	No	and guidelines. All the health and safety related laws are abided by in the production and distribution process. Hence, this safeguarding principle is not triggered. 3. The working conditions of the employees and workers are in compliance with national guidelines of the host country (India). Hence, this safeguarding principle will not be triggered. 4. The project does not employ and is not complicit in any form of child labour in any way. Plants are built & maintained with the help of trained staffs and not child labour. Adequate	No mitigation measures required No mitigation measures required	

	training of workers, documentation and reporting of accidents and incidents, and emergency preparedness and response measures	No	safety measures are undertaken while manufacturing the products to be disseminated under the project. Hence the safeguarding principle is not triggered.	No mitigation measures required	
	Principle 6.2 Negative Economic Consequences				
	1. Does the project cause negative economic consequences during and after project implementation?	No	The project design ensures financial sustainability by a combination of revenue sources (majorly from carbon credit sales and revenue from stove sales). It is expected that as the users have already benefited the economic savings by using the fuel efficient stoves, majority of them would purchase these again even after the certification period. The project does not possess any threat to the local economy, instead it	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.

			catalyses several aspects relating to it's growth (eg., monetary savings on fuel, job creation, etc)		
Principle 7.1 Emissions					
Will the Project increase greenhouse gas emissions over the Baseline Scenario?	No	The project will deploy efficient cooking stoves against the traditional cooking stoves will replace traditional methods which will ultimately result in GHG emissions reduction.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.	
Principle 7.2 Energy Supply					

	Will the Project use energy from a local grid or power supply (i.e., not connected to a national or regional grid) or fuel resource (such as wood, biomass) that provides for other local users?	No	The project will deploy efficient cooking stoves that results in reduced consumption of firewood. Installation and use of both don't result in access, consumption, availability of firewood and reliability of energy supply to other users.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 8.1 Impact on Natural Water Patterns/Flows				
	Will the Project affect the natural or pre-existing pattern of watercourses, ground-water and/or the watershed(s) such as high seasonal flow variability, flooding potential, lack of aquatic connectivity or water scarcity?	No	The project doesn't involve any activity related to discharge of waste-water, extraction of surface or ground water. This would not involve affecting the existing watercourses, watersheds or flow variability. Hence, this safeguarding principle will not be triggered.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 8.2 Erosion and/or Water Body Instability				

	a. Could the Project directly or indirectly cause additional erosion and/or water body instability or disrupt the natural pattern of erosion? b. Is the Project's area of influence susceptible to excessive erosion and/or water body instability?	No	Not relevant	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.1 Landscape Modification and Soil				

	Does the Project involve the use of land and soil for production of crops or other products?	No	The project involves the dissemination of units of cookstoves, which does not involve the crops or other products. Therefore, the safeguarding principle under consideration will not be triggered by the project.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.2 Vulnerability to Natural Disaster				

	Will the Project be susceptible to or lead to increased vulnerability to wind, earthquakes, subsidence, landslides, erosion, flooding, drought or other extreme climatic conditions?	No	Not relevant	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.3 Genetic Resources				

	Could the Project be negatively impacted by or involve genetically modified organisms or GMOs (e.g., contamination, collection and/or harvesting, commercial development, or take place in facilities or farms that include GMOs in their processes and production)?	No	Not relevant	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.4 Release of pollutants				
	Could the Project potentially result in the release of pollutants to the environment?	No	Not relevant The project activity involves installation of improved cookstoves hence reduction in firewood amount.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.5 Hazardous and Non-hazardous Waste				

	Will the Project involve the manufacture, trade, release, and/ or use of hazardous and non-hazardous chemicals and/or materials?	No	Not relevant	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.6 Pesticides & Fertilisers				

	Will the Project involve the application of pesticides and/or fertilisers?	No	Not relevant The project does not involve any activity that requires the use of pesticides or fertilizers.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.7 Harvesting of Forests				
	Will the Project involve the harvesting of forests?	No	Not relevant. The project activity does not involve harvesting of forests. On the other hand, the project activity will utilize renewable biomasses, such as non-fossil residues from industrial or municipal waste.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.8 Food				

	Does the Project modify the quantity or nutritional quality of food available such as through crop regime alteration or export or economic incentives?	No	Not relevant. The project does not affect the quantity or nutritional quality of food available.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.9 Animal husbandry				
	Will the Project involve animal husbandry?	No	Not relevant. The project does not involve animal husbandry.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.10 High Conservation Value Areas and Critical Habitats				

	Does the Project physically affect or alter largely intact or High Conservation Value (HCV) ecosystems, critical habitats, landscapes, key biodiversity areas or sites identified?	No	Not relevant. The project does not affect any of these aspects.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
	Principle 9.11 Endangered Species				
	a. Are there any endangered species identified as potentially being present within the Project boundary (including those that may route through the area)? a. Does the Project potentially impact other areas where endangered species may be present through transboundary affects?	No	Not Relevant The project area and its surroundings does not have any endangered species.	No mitigation required	The justification provided by CME/VPA Implementer was found adequate based on the sectoral expertise of validation team. Further CME/VPA Implementer representative/employee and stakeholders were interviewed during the site visit and through the remote interviews by the validation team and found correct.
Findings	CAR 03 has been raised in this regard and successfully closed. Refer Appendix-4 of this report for more details.				
Conclusion	Validation team has carried out site visit along with interviews through electronic means to cross check the safeguarding principle assessment. GS VVB has also reviewed the initial GS local stakeholder consultation report and GS4GG VPA DD and found that the CME has assessed all the required critical safeguarding principle of United Nations in VPA. It has been found that the VPA fulfil all the principles like Human Rights, Labor standards, environment protection and anti-corruption. The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.				

D.7. Stakeholder Inputs & Grievance Mechanism

Means of validation

Discussion of continuous input /grievance mechanism:

The continuous input and grievance mechanism was discussed during the LSC meetings. The participants were informed that CI/GM is a continuous process where they can express any concerns they have during the lifetime of the project.
The methods used for this were explicitly explained and the members were given the liberty to select the most appropriate methods. The options included a Log Book/Expression Book placed at a strategic location, telephone calls, emails.

The customer service email address was given as sujeet.k@greenwayappliances.com, saanaee.naik@greenwayappliances.com, contact@greenwayappliances.com. The Gold Standard contact emails help@goldstandard.org was also shared with the stakeholders to reach out to the GS in case on any major issues regarding the project.

Stakeholders were provided below details to register their issues:

Method	Method Chosen (include all known details e.g. locatio of book, phone, number, identity of mediator)
Continuous Input / Grievance Expressior Process Book (mandatory)	Continuous input and grievance expression can be directly communicated to the proponent's office in-person. Greenway Grameen Infra Pvt. Ltd, 23/A, GIDC Manjusar, Savli Road, Vadodara, Gujarat 371775 This method is chosen to encompass the stakeholders who wish to physically post their comments/grievances are not acquainted to other means of communication, largely the category A stakeholders.
GS Contact (mandatory)	help@goldstandard.org
Telephone access (optional)	Mr. Sujeet Kumar can be contacted via the following number: 02667-264434
Internet/email access (optional)	sujeet.k@greenwayappliances.com saanaee.naik@greenwayappliances.com contact@greenwayappliances.com
Other	N/A

Findings

No finding raised.

Conclusion

Validation team has checked the corresponding documents /01/, /12/, /23/ and found OK. The validation team confirms that the project activity meets the Gold Standard requirements for stakeholder feedback/ grievance mechanism.

The VPA 01 under the PoA (GS10818) has already been validated and approved by SustainCERT. Since, the VPAs (VPA 02-VPA15) are identical to the VPA 01 in all respect, hence it further confirms that that these 14 VPAs sufficiently meets all the requirements of Gold Standard.

SECTION E. Internal quality control

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The validation report prepared by team leader is reviewed by an independent technical reviewer (having competence of relevant technical area himself/herself or through an independent technical area expert) to confirm that the internal procedures established by 4KES are duly followed and the validation report/opinion is reached in an objective manner and complies with the applicable CDM requirements.

The technical review team is collectively required to possess the technical expertise of all the technical area/sectoral scope the project activity relates to. All team members of technical review team are independent of the validation team. The independent technical reviewer(s) may approve or reject the draft validation report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before submit final report to GS. The final approval decision is taken by the Head of the VVB/Director.

The final decision is authorized by the Director, 4KES, once the report is finalized by the Head of the VVB/VVB Manager.

SECTION F. Validation opinion

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4K Earth Science Private Limited has been contracted by "Greenway Grameen Infra Pvt Ltd (Coordinating/managing entity)" to perform a validation of the GS VPAs inclusion under the Programme of Activity GS10818.

VPA Title:

1. VPA 02 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA002 (GS reference number: GS 10825)

2. VPA 03 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA003 (GS reference number: GS 11218)

3. VPA 04 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA004 (GS reference number: GS 11309)

4. VPA 05 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA005 (GS reference number: GS 11310)

5. VPA 06 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA006 (GS reference number: GS 11311)

6. VPA 07 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA007 (GS reference number: GS 11312)

7. VPA 08 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA008 (GS reference number: GS 11313)

8. VPA 09 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA009 (GS reference number: GS11628)

9. VPA 10 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA010 (GS reference number: GS11629)

10. VPA 11 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA011 (GS reference number: GS11630)

11. VPA 12 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA012 (GS reference number: GS 11631)

12. VPA 13 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA013 (GS reference number: GS11632)

13. VPA 14 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA014 (GS reference number: GS11633)

14. VPA 15 Title: GS10818 - Dissemination of Improved Cookstoves in India by Greenway - Dissemination of Improved Cookstoves in Karnataka by Greenway - VPA015 (GS reference number: GS11634)

The validation was performed in accordance with the GS4GG in conjunction with UNFCCC criteria for the Clean Development Mechanism, latest version of Validation and Verification Standard for Project Activities and related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

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

The review of the VPA-DD and the subsequent follow-up interviews have provided validation team with sufficient evidence to validate the VPA. The VPA correctly applies Gold Standard methodology: “AMS.II.G version 12” /09/. It is demonstrated that the project is not a likely baseline scenario. The emission reductions attributable to the project is hence additional to any that would occur in the absence of the project activity.

Based on the information seen and evaluated, 4KES confirms that the implementation of the VPA will result positive contribution to sustainable development as follows:
SDG 13 Climate Action (mandatory): 39,126 tCO_2e (Emissions Reduction)
SDG 07: Affordable and clean energy: 15,500 Number of project households predominantly using clean cooking devices such as Improved Cook Stoves
SDG 05: Gender Equality: 1.15 Hours per household per day saved on firewood collection time
SDG 03: Good Health and Wellbeing: 70% Percentage decrease in household smoke
SDG 08: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: 15 number of employment/VPA

The above stated outcomes have been checked and it is deemed likely that the stated amount is achievable given the underlying assumptions do not change.

The monitoring plan provides for the monitoring of the SDG impact. The monitoring arrangements described in the monitoring plan are feasible within the project design and it is validation team’s opinion that the CME/VPA Implementer are able to implement the monitoring plan.

In summary, it is validation team’s opinion that the VPAs meets all relevant GS & UNFCCC requirements. Hence, 4KES requests for the inclusion of the VPAs under Programme of Activity GS10818 under GS4GG.

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emission
CAR	Corrective Action Request
CDM	Clean Development Mechanism
CDM EB	CDM Executive Board
CER	Certified Emission Reduction(s)
CL	Clarification request
CO2	Carbon dioxide
CO2e	Carbon dioxide equivalent
CP	Commitment Period
EB	Executive Board
EF	Emission factor
ER	Emission Reduction
FAR	Forward Action Request
GHG	Greenhouse Gas(es)
GS4GG	Gold standard for Global Goals
ICS	Improved Cookstoves
IPCC	Intergovernmental Panel on Climate Change
MoEF	Ministry of Environment & Forest
MNRE	Ministry of New & Renewable Energy
MP	Monitoring Plan
PP	Project Participant
SDG	Sustainable development goal
UNFCCC	United Nations Framework Convention on Climate Change

Appendix 2. Competence of team members and technical reviewers

Certificate of Competence							
Name	☒ Mr. ☐ Ms.	**Rohit Badaya**					
Qualification Procedure		*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects.*					
Appointed to work as:							
		CDM Validator/Verifier	**Team Leader**	**Team Member**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**
Appointed		Yes	Yes	Yes	Yes	Yes	No
Appointed Date		30-04-2022					
Authorized to work as Technical Expert for:							
Authorized Technical Area		**Sectoral Scope**		**TA Code**		**Technical Area within the scope**	
		Energy industries (renewable - / non-renewable sources)		1.1		Thermal energy generation	
		Energy industries (renewable - / non-renewable sources)		1.2		Renewables	
		Energy distribution		2.1		Energy distribution	

	Energy demand	3.1	Energy demand
	Waste handling and disposal	13.1	Solid waste and wastewater
	Waste handling and disposal	13.2	Manure
Authorized to work as Local Expert for:			
Country/Countries	India		
Compliance check by: Anand S. R.			

Certificate of Competence							
Name	☒ Mr. ☐ Ms.	**Ma Paa Puratchikkanal**					
Qualification Procedure		*Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects.*					
Appointed to work as:							
		CDM Validator/Verifier	**Team Leader**	**Team Member**	**Technical Expert**	**Technical Reviewer**	**Financial Expert**
Appointed		Yes	Yes	Yes	Yes	Yes	No
Appointed Date		27-04-2021					
Authorized to work as Technical Expert for:							
Authorized Technical Area		**Sectoral Scope**		**TA Code**	**Technical Area within the scope**		
		Energy industries (renewable - / non-renewable sources)		1.1	Thermal energy generation		
		Energy industries (renewable - / non-renewable sources)		1.2	Renewables		
		Energy demand		3.1	Energy demand		
		Construction		6.1	Construction		
		Waste handling and disposal		13.1	Solid waste and wastewater		
		Waste handling and disposal		13.2	Manure		
		Agriculture		15.1	Agriculture		
Authorized to work as Local Expert for:							
Country/Countries		India and Sri Lanka					
Compliance check by: Anand S. R.							

Appendix 3. Documents reviewed or referenced

No.	Title	References to the document
1.	VPA-DDs (initial) for the following VPAs: VPA 0002 (version 2.0) VPA 0003 (version 1.1) VPA 0004 (version 1.1) VPA 0005 (version 1.1) VPA 0006 (version 1.1)	 31/07/2021 08/04/2022 09/04/2022 08/04/2022 08/04/2022

	VPA 0007 (version 1.1) VPA 0008 (version 1.1) VPA 0009 (version 1.1) VPA 0010 (version 1.1) VPA 0011 (version 1.1) VPA 0012 (version 1.1) VPA 0013 (version 1.1) VPA 0014 (version 1.1) VPA 0015 (version 1.1)	08/04/2022 08/04/2022 22/06/2022 22/06/2022 22/06/2022 22/06/2022 22/06/2022 22/06/2022 22/06/2022
2.	VPA-DDs (final): VPA 0002 (version 3.0) VPA 0003 (version 3.0) VPA 0004 (version 3.0) VPA 0005 (version 3.0) VPA 0006 (version 3.0) VPA 0007 (version 3.0) VPA 0008 (version 3.0) VPA 0009 (version 3.0) VPA 0010 (version 3.0) VPA 0011 (version 3.0) VPA 0012 (version 3.0) VPA 0013 (version 3.0) VPA 0014 (version 3.0) VPA 0015 (version 3.0)	 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023 27/01/2023
3.	GS Emission Reductions Calculations sheet (corresponding to the initial version of the VPA-DDs)	08/04/2022
4.	GS Emission Reductions Calculations sheet (corresponding to the final version of the VPA-DDs)	27/01/2023
5.	Registered PoA-DD (version 5.1)	08/01/2022
6.	Validation report of the registered PoA (version 02)	28/07/2021
7.	VPA-DD of the registered VPA 01 (version 8.0)	12/01/2022
8.	Validation report of the registered VPA 01 (version 05)	14/01/2022
9.	Methodology (AMS II.G: Energy efficiency measures in thermal applications of non-renewable biomass, version 12)	14/12/2020
10.	Project database	
11.	Baseline Survey Report /Data	
12.	Local Stakeholder Consultation report (version 2.1)	22/07/2022
13.	Certification of Incorporation for Greenway Grameen Infra Pvt. Ltd.	02/12/2010
14.	Declaration form for no double counting	01/03/2022
15.	Declaration on insolvency or legal/criminal notices placed against it or any of its Directors	29/07/2022
16.	Technical specifications (including the stove lifetime) of the Greenway Jumbo Stoves	
17.	Fraction of Non-Renewable Biomass calculation sheet as per the tool “Calculation of the fraction of non-renewable biomass Energy Utilization in Karnataka: Part-I An Overview	
18.	Agreement between Beneficiary and Greenway Grameen Infra Pvt. Ltd. (Greenway) for the households installed under 14 VPAs (VPA 02-VPA15)	
19.	Invoice from Greenway Grameen Infra Pvt. Ltd. to the beneficiary end-users for the households installed under 14 VPAs (VPA 02-VPA15)	
20.	IPCC default values	
21.	Thermal efficiency test report dated 21/10/2020 by KIRDI Stove Testing Centre	21/10/2020
22.	Declaration of non-use of Official Development Assistance declaration	10/04/2022
23.	Local Stakeholder Consultation report related documents - Invitations/Public Notice - Attendance sheet - Photographs - Minutes of physical consultation meeting SFR related documents	

24.	Memorandum of understanding between Greenway Grameen Infra Pvt. Ltd. and Sri Kshetra Dharmasthala Rural Development Project BC Trust (R.)	01/04/2020
25.	CDM Project Standard for PoA CDM Validation and Verification Standard for PoA	Version 03 Version 03
26.	GHG Emissions Reduction & Sequestration Product Requirements, Version 2.0 Community Services Activity Requirements, v1.2 Programme of Activity Requirements, Version 1.2 Stakeholder Consultation and Engagement Requirements, Version 1.2 Stakeholder Consultation and Engagement Guidelines, Version 1.2 Principles & Requirements, Version 1.2 Safeguarding Principles & Requirements, v1.2 https://globalgoals.goldstandard.org/all-documents/	
27.	Guideline for sampling and surveys for CDM project activities and programmes of activities, Version 04.0 Sampling and surveys for CDM project activities and programmes of activities, Version 09.0	
28.	TOOL 30: Calculation of the fraction of non-renewable biomass, Version 03.0 https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-30-v3.0.pdf/history_view	Version 3.0
29.	COVID 19 Interim measures https://globalgoals.goldstandard.org/ru-2020-covid-19-interim-measures-update/	Publication date v5-21/12/2021 (valid upto 30/06/2022)
30.	VPA DESIGN DOCUMENT form https://globalgoals.goldstandard.org/t-prereview-vpa-design-document/	Version 1.1
31.	GS11331_SDG-Impact-Tool	
32.	Kumar, P., & Igdalsky, L. (2019). Sustained uptake of clean cooking practices in poor communities: Role of social networks. *Energy research & social science*, *48*, 189-193. Jindal, S. K., Aggarwal, A. N., & Jindal, A. (2020). Household air pollution in India and respiratory diseases: current status and future directions. *Current Opinion in Pulmonary Medicine*, *26*(2), 128-134 Balakrishnan, K., Dey, S., Gupta, T., Dhaliwal, R. S., Brauer, M., Cohen, A. J., ... & Sabde, Y. (2019). The impact of air pollution on deaths, disease burden, and life expectancy across the states of India: the Global Burden of Disease Study 2017. *The Lancet Planetary Health*, *3*(1), e26-e39.	

Appendix 4. Clarification requests, corrective action requests and forward action requests

Table 1. Remaining FAR from preliminary review

FAR ID	01	**Section no.**	-	**Date:** 18/07/2022
Description of FAR				
VPA 02: PP is requested to address the following issues (FARs) raised during the preliminary review: FAR # 1: The VVB shall check the '*carbon transfer forms*' in order to confirm on the full and uncontested legal ownership of the carbon rights produced by the project at the time of validation.				

FAR # 2: The VVB shall confirm during the validation that project does not exceed the small-scale limits during the course of the crediting period

FAR # 3: The VVB shall check whether the project sufficiently applies the Gold Standard Gender Equality Guidelines & Requirements at the time of validation.

FAR # 4: The VVB shall check the correctness of the project start date along with the relevant evidences at the time of validation.

FAR # 5: As the operational lifetime is defined as 7 years and length of crediting period is defined as "5 years (renewable twice)", hence the VVB shall check the appropriateness of the duration of crediting period at the time of validation

FAR # 6: The evidence for the lifetime of the equipments shall be checked by the VVB at the time of validation.

FAR # 7: The "GS ID" and "Title" of the VPA in the Stakeholder Consultation Report shall be inline with the VPA-DD and the SustainCERT website.

FAR # 8: The VVB shall check the relevant evidence of the invitations for the Stakeholder Consultation at the time of validation.

FAR # 9: The VVB shall check whether sufficient time (2-4 weeks' notice) for the stakeholders was provided to prepare to attend the physical meeting.

FAR # 10: The project is located in the state of Karnataka, while the stakeholder meeting was conducted in Gujarat. The VVB shall check at the time of validation as how it may be considered as appropriate.

FAR # 11: The VVB shall check during the validation whether the SFR followed all the relevant rules/guidelines. The VVB shall also confirm whether the stakeholders are aware of the continuous input/grievance mechanism and the various modes through which comments/grievances may be submitted at the time of validation.

Project participant response	**Date:** 12/08/2022

FAR # 1: The carbon transfer forms (sample copies) are attached for the perusal of VVB.
FAR # 2: The numbers of stove are capped with respect to the SSC threshold of energy saving for type II project activities, the ER sheet demonstrates the same. The actual inclusion of ICSs under the VPA restricted within the cap. ER sheet is attached as evidence.
FAR # 3: The VPA is designed in the same line with the already approved VPA#01 by the GS/SC. Therefore the requirements complied.
FAR # 4: Evidence for substantiating the project start date is attached herewith, the date of first stove included under VPA#002 is chosen as start date. Evidence is attached herewith.
FAR # 5: The PoA has provision of replacing the stoves after completion of technical lifetime (7 years), therefore the PoA/VPAs fulfil the criteria.
FAR # 6: The third party WBT undertaken demonstrates the lifetime of the ICS models part of VPA. The evidence is attached herewith.
FAR # 7: The GS ID is updated along with the title, this is to be noted that the LSC was undertake at PoA level in Gujarat (where the CME has the ICS manufacturing unit) as well as at the VPA level in Karnataka, wherein number of VPAs planned by the CME to be implemented. The clarity is now included in the VPA.
FAR # 8: The copies of invitations were part of VPA#001 too along with PoA, which has been design reviewed by Sustaincert. Nonetheless the same evidence is attached again.
FAR # 9: Invitations were sent well in advance to the local stakeholders, the evidence are attached.

FAR # 10: CME would like to clarify the LSC at PoA level is undertaken at various places including 'Gujarat' as cited by the reviewer. Since the PoA is planned at multiple locations, so Gujarat was one of the venues. The LSC is also undertaken in Karnataka, evidence is attached.

FAR # 11: SFR was undertaken by the CME by complying all the applicable GS requirement, this was also demonstrated in the approved VPA#001. Evidence is shared with the VVB.

Documentation provided by project participant

DOE assessment	**Date:** 19/08/2022

1. The 'carbon transfer forms' or agreement have been checked and found that it "*Irrevocably transfer all*

rights to any Carbon Credits that may be generated by the operation of the Greenway Stove to Greenway Grameen Infra Pvt. Ltd., and to take all reasonable steps to affect such transfer". The individual households *"irrevocably waive any rights to Carbon Credit in exchange for the supply of the Greenway Stove at a subsidized rate with easy financing option*".

2. The threshold calculations have been carried out in the ERs Excelsheet submitted during the validation process. The calculations consider the methodology threshold for energy savings as 180 GWh(thermal)/year. Based on the calculations, the maximum number of stoves which can be installed under one VPA is 15,610. However the maximum of 15.500 stoves have been installed under each VPA, hence the VPAs does not exceed the small-scale limits during the course of the crediting period.

3. During the site visit, it was observed that women have to spend lot of time while collecting the firewood from the forests. The project leads to the savings in the time spent collecting fuelwood from the forests, hence the women now can use the saved time for other activities. This shows the project promotes the gender equality. The stoves reduce smoke and fire related injuries and hence leads to good health and well-being of the women. The stoves are sold to the women, who are mainly responsible for using the stoves and hence leads to their empowerment.
Further various community level meetings are conducted everyday to educate the women on the benefits of stoves and healthy environment while cooking. The meetings are conducted with the help of their local partners, which have their self-help groups, which consists of mainly women.
Based on the review of documents and site visit, the VVB can confirm that the project sufficiently applies the Gold Standard Gender Equality Guidelines & Requirements.

It shall be noted that the registered VPA (VPA 01) and other VPAs (current VPA 02-VPA15 under validation) are applicable to the PoA and hence identical in all the aspects. Since the VPA 01 has already been approved by SustainCERT and hence it automatically confirms and demonstrates that rest of the VPAs (VPA 02-VPA15) also adheres to the applicable gold standard gender equality guidelines & requirements.

4. The earliest date of Invoice corresponding to all the ICS distributed in each of the VPAs have been checked and hence the start date has been confirmed for all the VPAs.

5. The PoA is not limited by the lifetime of the stoves, since the PoA has a provision of replacing the stoves after completion of technical lifetime (7 years). The technical specifications (stove lifetime) have been confirmed through the declaration provided by the stove manufacturer. Hence the PoA will be in operation during the length of the entire crediting period. The same was also confirmed during the site visit.

6. The technical specifications have been checked through the declaration provided by the stove manufacturer. The lifetime of stove has been found to be 7 years. Further the PoA is not limited by the lifetime of the stoves, since the PoA has a provision of replacing the stoves after completion of technical lifetime (7 years). The same was also confirmed during the site visit.

7. The GSID and Title of the VPAs have been corrected in the Stakeholder Consultation report inline with the actual VPA-DDs and SustainCERT website.

8. The relevant evidences (including invitations, public notice, photographs, attendance sheet etc.) have been checked and confirmed that the on the Stakeholder Consultation meeting. The Stakeholder Consultation was also confirmed through the interviews conducted during the site visit.

9. The sufficient time (2-4 weeks prior to meeting) was provided for the stakeholders to attend the physical meeting and the same was also confirmed during the site visit.

10. The stakeholder consultation meeting was also undertaken in the state of Karnataka apart from the consultation in Gujarat. As the VPAs are located in the state of Karnataka and stakeholder consultation was conducted at two locations (Kolar and Tumkur) in Karnataka state of India. The local stakeholder consultation documents (invitations, public notices, photographs, attendance sheet) have been checked and interviews were conducted during the site visit and hence confirmed that stakeholder consultation was conducted in Karnataka state of India, where the project activity is located.

11. The relevant requirements have been followed for conducting the SFR. The stakeholder meeting at the PoA level was organized on 18/07/2020. Further the local stakeholder meetings were conducted on 07/12/2020 in Kolar and on 11/01/2021 in Tumkur district in Karnataka state respectively. The Stakeholder Feedback round started on 26/11/2020 and ended on 27/04/2021, which covered both the PoA and VPA

level stakeholder consultation. All the relevant documents were provided during the SFR consultation meetings and the stakeholders are aware of the continuous input/grievance mechanism and the various modes through which comments/grievances may be submitted at the time of validation. The same was also confirmed at the time of site visit.

The Comment is closed.

FAR ID	02	**Section no.**	-	**Date:** 18/07/2022
Description of FAR				

VPA 03 - 08:

PP is requested to address the following issues (FARs) raised during the preliminary review:

FAR # 1: PD shall supply supporting data for all parameters in time for validation/design review, or allocation may be delayed. This includes and is not limited to: ER spreadsheets, individual study calculations, survey results, study reports etc.

FAR # 2: A Continuous Input and Grievance Mechanism must be set up prior to starting validation at each project site.

FAR # 3: VVB shall conduct interviews with the locals especially women at the time of the validations.

FAR # 4: All the safeguarding principles assessment shall be supported with evidence/references/expert's opinion. The PP shall provide them for GS VVB validation.

FAR # 5: VVB is required to check for double counting at both validation and verification stages by reviewing all relevant registries that could hold RECs/VERs/CERs from the considered project activity.

FAR # 6: PP to provide evidence for operation lifetime of the devices and VVB to check.

FAR # 7: VVB to check the test reports by KIRDI.

FAR # 8: Since the VPAs have overlapping geographical location, VVB shall check and provide its opinion how the ICS will not be double counted or overlapped with VPAs implemented in same town/area. PD to also explain the same in the VPA-DD

Project participant response	**Date:** 12/08/2022

VPA 03 – 08
FAR # 1:
All the assumptions, survey inter alia are common for the baseline pertaining to VPA#01-015, all documents were furnished during the design review of PoA to VVB. Nonetheless, the documents/survey/test reports and ER sheets are attached herewith for the kind perusal of VVB.

FAR # 2:
The VPAs are located within the one state Karnataka, the input mechanism will be part of major areas/cities/sites of the VPAs.

FAR # 3: Related to VVB, therefore CME's response is not required for this FAR.

FAR # 4: All the safeguarding's measures are common for all VPAs, the VPA#001 has been already approved. The supporting documents/evidence are similar.

FAR # 5:
Declaration to this effect (double counting) is already provided to VVB, the FAR is related to VVB thus not related to CME.

FAR # 6: The manufacturer's specifications is attached as evidence for the lifetime of ICS distributed under the PoA.

FAR # 7: Related to VVB, therefore CME's response is not required for this FAR. Test report of KIRDI is

attached herewith. FAR # 8: Each ICS under the VPAs is linked with the geo coordinate, address, mobile number (if available) as part of database. CME is managing the 100% database across all VPAs therefore the double counting is ruled out.
Documentation provided by project participant
Baseline Surveys Database WBT Test Report Revised VPA DDs
DOE assessment **Date:** 19/08/2022
1. The supporting documents have been submitted for the validation & verification process. The same documents shall be submitted to SustainCERT in time for the validation/design review. 2. The details on the “continuous input/grievance mechanism” has been provided in the Section E.2 of the VPA-DD. The same details is also available in the Local Stakeholder Consultation Report. 3. The interviews with the locals including women were conducted at the time of site visit and confirmed that the project has been implemented as per the details available in the VPA-DDs. 4. The safeguarding principles are discussed in the Appendix 1 of VPA-DDs and meet the GS requirements and hence found correct. Further the safeguarding principles are already discussed in the PoA-DD (GS10818) and real case VPA-DD (VPA 01: GS10821). The PoA (GS10818) and its real case VPA (VPA 01) has already been approved by the SustainCERT. The rest of the VPAs (VPA02 to VPA15) are identical to the VPA 01 and hence the safeguarding principles requirements are also met by them. 5. PP has confirmed in the VPA-DD that each cookstove is installed with a unique serial number ensuring that they are uniquely identifiable to this project. The unique identification number avoids the double counting of the cookstoves installed in the project activity. Further a declaration by the CME is provided that the VPAs are neither registered as a project activity with GS or any other standard/carbon offset scheme or as a VPA of another PoA. The other relevant registries (like Gold Standard, CDM etc.) have also been accessed that could hold RECs/VERs/CERs from the considered project activity and found no double counting. 6. The stove lifetime has been checked from the technical specifications submitted by the ICS manufacturer. The same was also confirmed through the interviews at the time of site visit. 7. The test reports by KIRDI has been checked and found appropriate. 8. The project database has been checked and found that each ICS under the VPAs is linked with the geo coordinate, address, mobile number (if available) as part of database. Further the CME is responsible for managing the 100% database across all VPAs and hence therefore the chances of double counting is ruled out. PP has confirmed in the VPA-DD that each cookstove is installed with a unique serial number ensuring that they are uniquely identifiable to this project. The unique identification number avoids the double counting of the cookstoves installed in the project activity. The other relevant registries (like Gold Standard, CDM etc.) have also been accessed that could hold RECs/VERs/CERs from the considered project activity and found no double counting. The Comment is closed.

FAR ID	03	**Section no.**	-	**Date:** 18/07/2022
Description of FAR				

VPA 09 - 15:

PP is requested to address the following issues (FARs) raised during the preliminary review:

FAR # 1: PD shall submit supporting data for all parameters in time for validation/design review, or allocation may be delayed. This includes and is not limited to: ER spreadsheets, individual study calculations, survey results, study reports etc

FAR # 2: GS VVB shall conduct interviews with the locals especially women at the time of the validations and provide its opinion in validation report.

FAR # 3: All the safeguarding principles assessment shall be supported with evidence/references/expert's opinion. The PD shall provide them for GS VVB validation and GS VVB shall provide it's assessment in validation report.

FAR # 4: GS VVB shall check that all the attendees of LSC meeting were invited for further feedback/comment during SFR. And provide it's assessment in validation report.

FAR # 5: The GS VVB shall check evidence of start date to the VVB during validation stage and provide it's assessment in validation report. Refer paragraph 4.1.40 of the GS Principles and Requirements.

FAR # 6: The evidence for thermal efficiency specifications or test results for the VPA shall be reviewed by the GS VVB and GS VVB shall provide assessment in validation report. The same shall also be uploaded to SC website for review.

Project participant response	**Date:** 12/08/2022

FAR # 1:
All the assumptions, survey inter alia is common for the baseline pertaining to VPA#01-015, all documents were furnished during the design review of PoA to VVB. Nonetheless, the documents/survey/test reports and ER sheets are attached herewith for the kind perusal of VVB.

FAR # 2:

Related to VVB, therefore CME's response is not required for this FAR.

FAR # 3: All the safeguarding's measures are common for all VPAs, the VPA#001 has been already approved. The supporting documents/evidence are similar.

FAR # 4:
Details of LSC undertaken at the VPA level and in the state of distribution (Karnataka) is attached herewith.

FAR # 5: The evidence of start date of all VPAs (2-15) are attached herewith.

FAR # 6: The third-party test report for WBT is attached as evidence and the same has been also validated as part of PoA and first VPA.

Documentation provided by project participant

DOE assessment	Date: 19/08/2022

1. The supporting documents have been submitted for the validation & verification process. The same documents shall be submitted to SustainCERT in time for the validation/design review.

2. The interviews with the locals including women were conducted at the time of site visit and found the project implementation details in the VPA-DD as correct.

3. The safeguarding principles are discussed in the Appendix 1 of VPA-DDs and meet the GS requirements and hence found correct. Further the safeguarding principles are already discussed in the PoA-DD (GS10818) and real case VPA-DD (VPA 01: GS10821). The PoA (GS10818) and its real case VPA (VPA 01) has already been approved by the SustainCERT. The rest of the VPAs (VPA02 to VPA15) are identical to the VPA 01 and hence the safeguarding principles requirements are also met by them.

4. The relevant requirements have been followed for conducting the SFR. The stakeholder meeting at the PoA level was organized on 18/07/2020. Further the local stakeholder meetings were conducted on 07/12/2020 in Kolar and on 11/01/2021 in Tumkur district in Karnataka state respectively. The Stakeholder Feedback round started on 26/11/2020 and ended on 27/04/2021, which covered both the PoA and VPA level stakeholder consultation. The attendees of LSC meeting were invited for further feedback/comment during SFR. All the relevant documents were provided during the SFR consultation meetings and the stakeholders are aware of the continuous input/grievance mechanism and the various modes through which comments/grievances may be submitted at the time of validation. The same was also confirmed at the time of site visit.

5. The Invoices has been checked which forms the basis of the start date in each of the VPAs and hence found correct.

6. The Test Report by “KIRDI Stove Testing Centre” has been submitted, which confirms sample received by “Greenway Appliances” and provides the average thermal efficiency of the Cookstove as 38%. The KIRDI is a public research institution in Ministry of Industrialization, Trade and Enterprise Development, Kenya and hence is an authentic testing centre for the Cookstoves. Hence the Efficiency of the ICS as 38% has been considered as appropriate for all the VPAs.

The Comment is closed.

Table 2. CL from this validation

CL ID	01	Section no.	-	Date: 18/07/2022
Description of CL				
VPA 02: Section A.2: It is mentioned that the VPA is implemented in various districts of Karnataka. The details on the location (districts) where the project is located may be provided in Section A.2 of the VPA-DD.				
Project participant response				**Date:** 12/08/2022
The locations wherein the VPA is implemented is now incorporated in section A.2.				
Documentation provided by project participant				
Revised VPA DD				
DOE assessment				**Date:** 19/08/2022
The regions/districts where the households are installed have been provided in the VPA-DD and found correct. Hence the comment is closed.				

CL ID	02	Section no.	-	Date: 18/07/2022
Description of CL				
VPA 03- VPA 08: VPA-DD (KPI Section): As per the VPA-DD filling guidelines, "*A VPA is retroactive if the 1st Round of Stakeholder Consultation conducted after the Project Start Date*". The start date of project is "01/10/2020" as per Section C.1.1 and stakeholder consultation was conducted on "18/07/2020" as per the Section E.1 of the VPA-DD. Hence the stakeholder consultation was carried out prior to the start date and hence it is not clear as why the project has been considered as "Retroactive" in the KPI section of the VPA-DD. Clarify.				
Project participant response				**Date:** 12/08/2022
VPA 03- VPA 08: The VPA DDs are now updated to change the VPAs as regular instead of retroactive.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The project type has been changed from retroactive to regular in the VPA-DDs. Hence the comment is closed.				

CL ID	03	Section no.	-	Date: 18/07/2022
Description of CL				
VPA02, VPA 03-VPA 08, VPA 09-VPA 15 Section B.6.1: The formula for the emission reduction calculations have been defined as follows in the Section B.6.1 of the VPA-DD: $ER_{y,i} = \sum_{\alpha=i}^{\alpha=y} B_{y,savings,i,\alpha} \times N_{y,i} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil\ fuel}$ However the emission reductions formula as per the applied methodology (AMS II.G, version 12) is as follows: $ER_{y,i,j} = B_{y,savings,i,j} \times N_{o,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected_fossil\ fuel}$ Equation (2) Hence more clarity may be provided in the VPA-DDs as how the ERs formula is consistent with the ERs formula as available in the applied methodology.				
Project participant response				**Date:** 12/08/2022
The formula was an error and now the same has been revised in line with the methodology.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The formula for the emission reduction calculations have now been updated inline with the applied methodology in the revised VPA-DD and hence found correct.				

CL ID	04	Section no.	-	Date: 18/07/2022
Description of CL				
VPA 03- VPA 08: Section E.1: As per the description provided, the local stakeholder consultation meeting was organized in Vadodara, Gujarat. However the project is located in Karnataka, hence it shall be clarified as how the consultation meeting carried out in Gujarat may be considered as adequate to the project activity.				
Project participant response				**Date:** 12/08/2022
The LSC was undertaken at PoA as well as at the VPA levels, at Vododara the first stakeholder consultation took place at PoA level, the subsequent meetings at VPA level undertaken in Karnataka where all the VPAs (1-15) are planned to be distributed. The information is now incorporated in VPA DDs.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The stakeholder consultation meeting was also undertaken in the state of Karnataka apart from the consultation in Gujarat. As the VPAs are located in the state of Karnataka and stakeholder consultation conducted in Karnataka, hence the same has been found to be appropriate. Some of the stakeholders which were present in the meeting were interviewed at the time of site visit. Further the invitations, public notices, photographs and attendance sheet of the consultation meeting has been checked and found that local stakeholder consultation meeting as appropriate. The stakeholder consultation requirements are discussed in the VPA-DD and found correct. Further the safeguarding principles are already discussed in the PoA-DD (GS10818) and real case VPA-DD (VPA 01: GS10821). The PoA (GS10818) and its real case VPA (VPA 01) has already been approved by the SustainCERT. The rest of the VPAs (VPA02 to VPA15) are identical to the VPA 01 and since the VPA 01 is already approved and hence the stakeholder requirements are also met by other VPAs (VPA 02 – VPA15). Hence the comment is closed.				

CL ID	05	Section no.	-	Date: 18/07/2022
Description of CL				
VPA 03- VPA 08, VPA 09- VPA 15: Baseline survey spreadsheet: It is observed that unique identification number of the households not included for all the households. Check				
Project participant response				**Date:** 12/08/2022
Baseline is conducted in the houses wherein the stoves were distributed and also wherein the stoves are not distributed to make the sample size representative. Therefore the HHs, who do not have id's are not part of programme but part of baseline survey.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
As the baseline surveys were conducted in the households before the distribution of the ICS and hence no unique identification number of the stoves is presented in the Baseline survey sheet. The Comment is closed.				

Table 3. CAR from this validation

CAR ID	01	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02: PP is requested to address the following issues (Likely CARs) raised during the preliminary review: 1. Likely CAR # 1: The template of the VPA-DD is not the same as that available on the GS website. Hence the VPA-DD shall be submitted in the original template of the VPA-DD available on the SustainCERT website. 2. Likely CAR # 2: The template of the Stakeholder Consultation Report shall be the same as that available on the SustainCERT website. 3. Likely CAR # 3: The date of individual invitations shall also be provided as per the requirement of the "*Invitation tracking table*" of the Section B.1 of Stakeholder Consultation Report template. 4. Likely CAR # 4: The Gold Standard contact shall also be included as part of the continuous input/grievance mechanism in the Stakeholder Consultation Report. 5. Likely CAR # 5: The ODA declaration with the correct GS ID shall be uploaded on the SustainCERT website.				
Project participant response				**Date:** 12/08/2022
1. Template, version 2 has been updated for all VPAs. 2. Template has been updated and submitted to Sustaincert as part of preliminary review for VPAs#09-15, this is to be noted that there was common Stakeholder meeting for all VPAs (1-15) being planned in the same state. The report includes the information. 3. The stakeholder consultation was submitted on the latest template for (VPA#09-015) based on the preliminary review comments and the same consultation was used for all VPAs. The copy of the same is attached in track change and clean mode. 4. The template is updated and the information (email id of GS) is incorporated therein for ongoing feedback/grievance. 5. ODA declaration is attached herewith.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
1. The VPA-DDs have now been submitted in the latest version of the VPA-DDs template available on the SustainCERT website and found correct. The Comment is closed. 2. The stakeholder consultation report has been submitted in the latest version of the Consultation report template available on the SustainCERT website. The Comment is closed. 3. The details on the invitations have now been provided in the Stakeholder Consultation report. 4. The Gold Standard contact has now been included as part of the continuous input/grievance mechanism in the Stakeholder Consultation Report. The Comment is closed. 5. The ODS declaration with the correct GS ID has been uploaded on the SustainCERT website. The Comment is closed.				

CAR ID	02	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				

VPA 03 - 08: PP is requested to address the following issues (Likely CARs) raised during the preliminary review: 1. Likely CAR # 1: The PP shall submit the fNRB report and demonstrate that it was calculated following the latest version of fNRB tool using the most recent available data.
Project participant response **Date:** 12/08/2022
1: Please note that the fnrb is fixed at the PoA level and the applicable version was applied at that point of time. The fnrb sheet with the applicable version of 'Tool 30' is attached herewith.
Documentation provided by project participant
DOE assessment **Date:** 19/08/2022
The fNRB sheet corresponding to the VPAs (VPA02-VPA15) has been submitted and found correct. Further the fNRB is already discussed in the real case VPA-DD (VPA 01: GS10821), which is already approved by the SustainCERT. The rest of the VPAs (VPA02 to VPA15) are identical to the VPA 01 and hence also accepted.

CAR ID	03	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 09 - 15: PP is requested to address the following issues (Likely CARs) raised during the preliminary review: 1. Likely CAR # 1: The VPA-DD shall include a confirmation that the host country, region, locality or state does not have an emission reduction cap enforced OR have the possibility to trade emissions that include the scope of the proposed project. If a risk of double counting exists, the project developer shall commit to retiring eligible units equal to the quantity of Gold Standard VERs. Refer Annex A 4.1 of GHG Emission Reduction & Sequestration Product Requirements. 2. Likely CAR # 2: As the product ownership is transferred from project beneficiaries, a sample proof (e.g., carbon waiver form) that end-users are aware of and willing to give up their rights on Products shall be submitted by the PD. 3. Likely CAR # 3: PD shall have the opinions of an expert stakeholder been provided for the following: Principle 4.1 Sites of Cultural and Historical Heritage Principle 4.2 Forced Eviction and Displacement Principle 4.3 Land Tenure and Other Rights Principle 4.4 Indigenous Peoples Principle 8.1 Impact on Natural Water Patterns/Flows Principle 8.2 - Erosion and/or Water Body Instability Principle 9.10 - High Conservation Value Areas and Critical Habitats Principle 9.11 - Endangered Species				
Project participant response **Date:** 12/08/2022				
VPA 09 - 15: 1. Please note that the project activity falls under 'Community Activity', the PoA/VPAs are voluntary activity and no host country regulation mandates to implement the technology covered by the PoA/VPAs. The justification is already part of VPA DDs submitted for the inclusion to VVB. 2. The carbon waiver is part of agreement signed with the HHs during the sale of ICS and also attached herewith as an evidence of start date of VPAs. 3. Please refer to the response of finding 1. The VPAs have no changes in terms of host country, location and technology from the already design certified VPA#001. Therefore, the CME believes that the cited requirements does not fall in the scope of VPAs covered by this inclusions. The project doesn't not adversely impact in any of the Safeguarding Principles and hence no expert opinion is required.				
Documentation provided by project participant				
DOE assessment **Date:** 19/08/2022				

1. The relevant details have been provided in Section A.1.1 of the VPA-DD. 2. The 'carbon transfer forms' or agreement have been checked and found that it "*Irrevocably transfer all rights to any Carbon Credits that may be generated by the operation of the Greenway Stove to Greenway Grameen Infra Pvt. Ltd., and to take all reasonable steps to affect such transfer*". The individual households *"irrevocably waive any rights to Carbon Credit in exchange for the supply of the Greenway Stove at a subsidized rate with easy financing option*". 3. The safeguarding principles are discussed in the Appendix 1 of VPA-DDs and meet the GS requirements and hence found correct. Further the safeguarding principles are already discussed in the PoA-DD (GS10818) and real case VPA-DD (VPA 01: GS10821). The PoA (GS10818) and its real case VPA (VPA 01) has already been approved by the SustainCERT. The rest of the VPAs (VPA02 to VPA15) are identical to the VPA 01 and hence the safeguarding principles requirements are also met by them. The Comment is closed.

CAR ID	04	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02: The Section number of the Section (Duration and Crediting period) is missing in the VPA-DD. Further the Section number from Section B.8.1 to B.9.2, Section C etc. shall be corrected in line with the section number as available in the original VPA-DD template available on the GS website.				
Project participant response				**Date:** 12/08/2022
This seems to be a formatting error in documents and the error has been rectified now.				
Documentation provided by project participant				
Updated VPA DD				
DOE assessment				**Date:** 19/08/2022
The Section number in the VPA-DD has been revised inline with the correct VPA-DD template available on the GS website. The Comment is closed.				

CAR ID	05	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02: VPA 02 (VPA-DD, Table 1): The estimated annual average has been provided as "37,982 tCO_2" as per the Table 1 of the MR. While the ERs are "39,126 tCO_2" as per the ERs Excel sheet. Provide appropriate corrections wherever required.				
Project participant response				**Date:** 12/08/2022
The correct number is 39,126 and the same has been updated in the revised VPA DD.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The estimated emission reductions are now corrected in the VPA-DD inline with the emission reductions available in the ERs Excelsheet. The Comment is closed.				

CAR ID	06	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02: Table 1 & Section B.6: The SDG 7 impact description is provided as "*Number of project households using Improved Cook Stoves*" as per the Table-1, while the description is "*Energy savings measured in terms of fuel wood saved*" as per the Section B.6 of the VPA-DD, which is different. Hence the consistent details shall be provided throughout the VPA-DD.				

Project participant response	Date: 12/08/2022
Section B.6 of the VPA is revised and made consistent with table 1.	
Documentation provided by project participant	
DOE assessment	**Date:** 19/08/2022
The SDG7 impact description has now been made consistent between the Table 1 and Section B.6 of the VPA-DD. The Comment is closed.	

CAR ID	07	Section no.	-	Date: 18/07/2022
Description of CAR				
VPA 09- VPA 15: Table 1: The SDG5 Impact description has been provided as "*Proportion of time spent on unpaid domestic and care work, by sex, age and location*" in the Table 1 of the VPA-DD. However, the SDG5 impact description as per the Section B.6 is "*Time spent collecting fuelwood from the forests*". The consistent SDG impact description be provided at all the places in the VPA-DD.				
Project participant response				**Date:** 12/08/2022
VPA 09- VPA 15: The table 1 under VPAs-009-015 has been now revised and made consistent with section B.6 of cited VPA DDs.				
Documentation provided by project participant				
VPAs-009-015 DDs				
DOE assessment				**Date:** 19/08/2022
The consistent SDG impact description has now been provided at all the places in the VPA-DDs. The Comment is closed.				

CAR ID	08	Section no.	-	Date: 18/07/2022
Description of CAR				
VPA 03- VPA 08, VPA 09-VPA15: VPA-DD (1st page): The formatting error (i.e. "Section B", "Section E", "Appendix 2", "Appendix 3" has been deleted) shall be corrected on the 1st page of VPA-DD.				
Project participant response				**Date:** 12/08/2022
The VPA DDs are now updated on the latest format. The formatting error is rectified now.				
Documentation provided by project participant				
Revised VPA DDs				
DOE assessment				**Date:** 19/08/2022
The original VPA-DD template has been restored in the VPA-DD. The Comment is closed.				

CAR ID	09	Section no.	-	Date: 18/07/2022
Description of CAR				
VPA 03- VPA 08: Section A.1: It is mentioned that "*The start date of VPA is 01/10/2020, the date is when the first cookstove distribution under the VPA*" in Section A.1 of the VPA-DD. However the project start date is "30/09/2020" as per the Section B.5.1 of the VPA-DD. Check the different start dates (01/10/2020 vs 30/09/2020) and provide relevant corrections in the VPA-DD.				
Project participant response				**Date:** 12/08/2022
The section B.5 has erroneous date and the same has been revised for VPAs referred by the VVB.				
Documentation provided by project participant				
Revised VPA DDs.				
DOE assessment				**Date:** 19/08/2022
The start date has been corrected in the VPA-DDs and hence the comment is closed.				

CAR ID	10	Section no.	-	Date: 18/07/2022
Description of CAR				
VPA 02, VPA 03- VPA 08: Please refer to the following Eligibility Criteria No. 11 (scale of the Activity) in the Section A.1.1 of the VPA-DD. "*Emission reductions achieved by each one of the activities considered under the small-scale programme are limited to a maximum of <= 600 MWh of energy savings per year or <=600 tons of emission reductions per year of their crediting period*". However "*means of verification/supporting evidence for inclusion*" states that "*The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year*". Hence the observed differences ('600 MWh of energy savings per year' vs 'savings of 180 GWh thermal per year') shall be corrected.				
Project participant response				**Date:** 12/08/2022
The energy saving per unit (per stove or activity) is less than 600 MWh and the project falls under type II energy efficiency improvement projects. The maximum limit for small-scale project is to achieve energy saving of 180 GWh thermal per year from all units/stoves or activity included under the threshold of 600 MWh (thermal) . The maximum number of ICS included under the project is given below under the small-scale project limit (Ref: ER calculation sheet). The statement is corrected in the VPA DDs now.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The threshold calculations have been carried out in the ERs Excelsheet submitted during the validation process. The calculations consider the methodology threshold for energy savings as 180 GWh(thermal)/year. Based on the calculations, the maximum number of stoves which can be installed under one VPA is 15,610. However the maximum of 15.500 stoves have been installed under each VPA, hence the VPAs does not exceed the small-scale limits during the course of the crediting period. Further it is also demonstrated in the ERs Exelsheet that each of the stove has annual energy savings less than 600 MWh (thermal)/cookstove. The Comment is closed.				

CAR ID	11	Section no.	-	Date: 18/07/2022
Description of CAR				
VPA 03- VPA 08: Section A.1.1: The compliance with respect to 'General Eligibility Criteria' as per "section 3.1.1 of GS4GG Principle & Requirements" and as per the section 2 and 3 of the applied "Community Service Activity Requirements" shall also be demonstrated in Section A.1.1 of the VPA-DD.				
Project participant response				**Date:** 12/08/2022
The VPA DDs are now updated and the required information to comply the requirement as pointed out by VVB is part of VPA DDs.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The additional details related to the 'General Eligibility Criteria' as per "section 3.1.1 of GS4GG Principle & Requirements" and as per the section 2 and 3 of the applied "Community Service Activity Requirements" have been provided in the Section A.1.1 of the VPA-DD. The Comment is closed.				

CAR ID	12	Section no.	-	Date: 18/07/2022
Description of CAR				

VPA 03- VPA 08: Section A.4: It is mentioned that "*Each ICS is expected to save 3.83 tons of woody biomass annually, corresponding to 2163.72 kWh per year. (Ref: ER calculation sheet)*". However please refer to the "Cell C9", in the "Threshold Calculation" spreadsheet of the ERs Excelsheet, where "Annual Energy Savings" are mentioned as "9.198 MWh(thermal)/Cookstove". The observed differences (2163.72 kWh per year vs "9.198 MWh per year) shall be corrected. Similarly check the cookstove annual thermal saving in Section B.2 as well.
Project participant response **Date:** 12/08/2022
9.198 MWh (Thermal) is the correct annual energy saving/ICS and the same has been updated in the VPA#003-008.
Documentation provided by project participant
DOE assessment **Date:** 19/08/2022
The correct annual energy savings of the ICS has been provided in the VPA-DDs and the comment is closed.

CAR ID	13	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02, VPA 03- VPA 08, VPA 09- VPA 15: Section B.6.1: The default value of $EF_{projected_fossilfuel}$ as "63.7 tCO_2/TJ" has been used in the ex-ante emission reduction calculations. However, the value ("64.40 tCO_2/TJ") has been used in the "Cell D32" of "ERs cookstoves" spreadsheet for the Emission Reduction calculations. Check.				
Project participant response				**Date:** 12/08/2022
VPA 02, VPA 03- VPA 08, VPA 09- VPA 15: The VPA DDs have been revised and updated the value of emission factor for the inconsistency observed by the VVB. The correct value is 64.40 tCO_2/TJ applicable for the South Asian countries.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The correct default value ($EF_{projected_fossilfuel}$) has now been provided in the Section B.6.1 of the VPA-DD. The Comment is closed.				

CAR ID	14	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 03- VPA 08: The calculation sheet of fNRB (93.66%) shall also be submitted.				
Project participant response				**Date:** 12/08/2022
VPA 03- VPA 08: Fnrb sheet is attached and it is fixed at the PoA level.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The fNRB sheet has been submitted. The Comment is closed.				

CAR ID	15	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02, VPA 03- VPA 08, VPA 09- VPA 15: ERs Excelsheet: Please refer to the "ERs cooksotves" spreadsheet, where the value of parameter "Bold" is provided as "3.83 Tonnes/year", while the unit for the same value ("3.83") of parameter is defined as "Tonnes/household/year" in the Section B.6.2 of VPA-DD. Further the parameter description is also not consistent between the two documents. Check. Hence consistent unit may be presented in the project documents.				
Project participant response				**Date:** 12/08/2022

ER spreadsheet is revised and the value represents 3.83 Tonnes/Household/year.
Documentation provided by project participant
DOE assessment **Date:** 19/08/2022
The correct unit ("Tonnes/household/year") has now been provided in the ERs Excelsheet inline with the unit present in the VPA-DD. The Comment is closed.

CAR ID	16	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 02, VPA 03- VPA 08, VPA 09- VPA 15: Section B.6.3: For the SDG5 (page-37), the value of "Tb,y" is provided as "3.86 hours/week" and "Tp,y" as "2.71 hours/week" based on which the Net Benefit my be calculated as "1.15 hours/week". However the Net Benefit as per the Table-1 of VPA-DD is "1.15 Hours per household per day". Hence the difference in terms of unit is observed which shall be corrected.				
Project participant response				**Date:** 12/08/2022
Table 1 is corrected and it has been now described as 1.15 Hours per household per week instead of day. This seems to be a typo error in VPA DDs.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The correct unit of the SDG impact 05 (*Time spent collecting fuelwood from the forests*) has now been provided in the Table 1 of VPA-DDs. The Comment is closed.				

CAR ID	17	**Section no.**	-	**Date:** 18/07/2022
Description of CAR				
VPA 03- VPA 08: Section B.7.1: The version 03 of the "*Guidelines for sampling and surveys for CDM project activities and programme of activities*", however the registered PoA-DD applies the latest version 04 of the Sampling Guidelines. Hence consistent version of the Sampling Guidelines shall be used in the VPA-DDs.				
Project participant response				**Date:** 12/08/2022
The obsolete version has been used by mistake; the version of sampling is now corrected.				
Documentation provided by project participant				
DOE assessment				**Date:** 19/08/2022
The correct version of the "*Guidelines for sampling and surveys for CDM project activities and programme of activities*" has now been provided inline with the registered PoA-DD. The Comment is closed.				

Table 4. FAR from this validation

No FAR raised during this validation.

~~**FAR ID**~~	~~Xx~~	~~**Section No.**~~		~~**Date:** DD/MM/YYYY~~
~~**Description of FAR**~~				
~~**Project participant response**~~				~~**Date:** DD/MM/YYYY~~
~~**Documentation provided by project participant**~~				
~~**DOE assessment**~~				~~**Date:** DD/MM/YYYY~~