Validation report form for renewal of crediting period for CDM project activities

(Version 03.0)

BASIC INFORMATION	
Title and GS4GG reference number of the project activity	Clean Cooking Solutions for rural Nepal GS 7544
Number and duration of the next crediting period	2nd Crediting Period Duration: 02/10/2023 to 01/10/2028
Version number of the validation report	1.2
Completion date of the validation report	12/02/2024
Version number of PDD to which this report applies	Version – 7.1, dated 08/02/2024
Project participants	Value Network Ventures Advisory Services Pte. Ltd. Environment Protection Centre (EPC)
Host Party	Nepal
Applied methodologies and standardized baselines	AMS-II.G, version 13
Mandatory sectoral scopes	3 (TA 3.1)
Conditional sectoral scopes, if applicable	N/A
Estimated amount of annual average GHG emission reductions or GHG removals by sinks in the next crediting period	26,772 tCO_2e
Name and UNFCCC reference number of the VVB	Carbon Check (India) Private Ltd., E-0052
Name, position and signature of the approver of the validation report	Sanjay Agarwalla Sanjay Kumar Agarwalla, Technical Director

SECTION A. Executive summary

>>**Purpose and general description of the PA:**

The purpose of the project is to displace the less efficient traditional cooking stoves with stoves of better efficiency (Improved Cooking Stoves). 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 stove disseminated under the project will potentially reduce the firewood consumption by half. The project involves promotion of improved cooking stoves (ICS) to the rural household in economically deprived community; in different districts of Nepal.

Location: The project is implemented in two districts i.e., Mahottari and Sarlahi, of the federal democratic republic of Nepal.

Scope of Validation

The validation scope is to review the updated GS-PDD /01/ against the GS4GG principles and requirements /B02/. Validation of the renewal of crediting period is a requirement and it is seen as necessary to provide assurance about:

a) Changes in the Project as related to the GS General Eligibility Criteria
b) Incorporation of any relevant updates to the Gold Standard Requirements
c) Re-definition of Baseline Scenario and any impact of change on the Eligibility Principles, Criteria and Requirements
d) Any Gold Standard activity, product and methodology-specific Requirements
e) Demonstration of Ongoing Financial Need
f) The impact of new relevant national and/or sectoral policies and circumstances on the baseline;
g) The correctness of the application of an approved baseline methodology for the determination of the continued validity of the baseline or its update, and the estimation of emission reductions for the applicable crediting period.

Validation process

Validation is conducted using Carbon Check (India) Private Limited procedures in line with the GS requirements and principles and applying standard auditing techniques. The validation assessment involved a document review of relevant documentation, the interview and/or onsite assessment and reporting. Validation is not meant to provide any consultancy toward the project participants. However, stated request for clarifications and/or corrective actions may have provided input for improvement of the project activity.

Conclusion

Carbon Check (India) Private Limited appointed by Value Network Venture Advisory Services Pte. Ltd. (VNV) on 05/05/2023 /11/ has performed the validation of the renewal of crediting period of the GS project (GS 7544) 'Clean Cooking Solutions for rural Nepal', with regard to the relevant GS principles and requirements /B02/.

In conclusion, it is Carbon Check (India) Private Limited's opinion that the GS project (GS 7544) 'Clean Cooking Solutions for rural Nepal' as described in the updated PDD version 7.1 of 08/02/2024, meets all relevant GS requirements and principles, and correctly applied the baseline and monitoring methodology AMS-II.G 'Energy efficiency measures in thermal applications of non-renewable biomass' version 13 /B01/.

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	Interview(s)	Validation findings
1.	Team Leader	IR	Raychoudhury	Rishi K.	CCIPL	X	X	X	X
2.	Technical Expert	IR	Anand	Amit	CCIPL	X	N/A	N/A	X
3.	Trainee Assessor	IR	Raj	Piyush	CCIPL	X	X	X	X
4.	Local Expert	ER	Karmacharya	Prasan	CCIPL	X	X	X	X

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

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	ER	Seshan	Ranganathan	CCIPL
2.	Approver	IR	Agarwalla	Sanjay Kumar	CCIPL

SECTION C. Means of validation

C.1. Desk/document review

>>

The updated GS PDD /01/ version 7.1 of 08/02/2024, in particular the applicability of the methodology /B01/, the baseline determination, the estimated emission reductions calculation /02/, the sustainability indicators, were assessed as part of the validation. All documents reviewed or referenced during the validation are listed in Appendix 3.

C.2. On-site inspection

Duration of on-site inspection: 22/08/2023 & 23/08/2023				
No.	**Activity performed on-site**	**Site location**	**Date**	**Team member**
1.	Project activity, technical specifications	Sarlahi, Mahotari & Dhanusha District of Nepal	22/08/2023 & 23/08/2023	Rishi K. Raychoudhury Piyush Raj Prasan Karmacharya
2.	Baseline Scenario			
3.	Project Boundary, Applicability of methodology			
4.	Monitoring plan, monitoring, and measuring systems			
5.	Data management and reporting, QA/QC systems			
6.	End user visit			

C.3. Interviews

No.	Interviewee			Date	Subject	Team member
	Last name	First name	Affiliation			
1.	Sah	Ramprabesh	EPC	22/08/2023	Opening meeting, project implementation, operation and maintenance, roles,	Rishi K. Raychoudhury Piyush Raj
2.	Karan	Amardeep Kr.	EPC	22/08/2023		

					and responsibilities etc.	Prasan Karmacharya
3.	Rijal	Neelam Sharma	VNV	22/08/2023 & 23/08/2023	Opening meeting PDD preparation, emission reduction calculation, GS requirements, monitoring procedures. sustainable development parameters, other benefits etc and closing meeting.	
4.	Devi	Rambati	HH	22/08/2023	Project technology, replacement details, benefits, baseline scenario, firewood consumption etc.	
5.	Devi	Mina	HH	22/08/2023		
6.	Devi	Kalawati	HH	22/08/2023		
7.	Yadav	Kameshwar Prasad	HH	22/08/2023		
8.	Yadav	Nagendra Prasad	SM (EPC)	22/08/2023	KPT process	
9.	Devi	Phulkumari	HH	22/08/2023	Project technology, replacement details, benefits, baseline scenario, firewood consumption etc.	
10.	Sah	Hajari	HH	22/08/2023		
11.	Mahra	Sermila Devi	HH	22/08/2023		
12.	Kumari	Rina	HH	22/08/2023		

C.4. Sampling approach

>>

PP's sampling approach:

PD has proposed simple random sampling plan using 90/10 as confidence / precision for annual monitoring. This is in line with the applied methodology /B01/. The sample size for each parameter is determined following guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities Ver. 4.0 (EB86, Annex 4) /B04**/.** However, PD has considered 10% additional sample than required.

The monitoring parameters monitored through the sampling plan are:

1) Quantity of woody biomass used by TCS devices in tonnes per Household($B_{old,HH}$)
2) Sustainable development parameters (SDG 3, SDG 7 and SDG 8)

CCIPL's verification sampling approach:

As per para.25 of the Standard: Sampling and surveys for CDM project activities and programmes of activities (version 09.0) /B04/, the validation team has to verify whether the project participant have implemented the sampling and surveys according to the sampling plan in the registered monitoring plan. The validation includes determining:

(a) Whether the required confidence/precision has been met;
(b) Whether the selected sample was representative of the population.

In line with para. 26 of the Sampling Standard (version 09.0) /B05/, the verification team has applied a sampling approach for onsite surveys as part of verification. Since PD had applied a sampling approach, the verification team has chosen acceptance sampling for monitoring parameters in accordance with para. 28 of the sampling standard (version 09.0) /B05/.

The following table illustrates the agenda covered during the acceptance sampling by the VVB in accordancewith Table 1, para. 37 of "Standard: Sampling and surveys for CDM project activities and programmes of activities (version 09.0) /B05/;

Parameter	How the PP conducted sampling surveys	How the VVB could obtain records for verification	Criteria for deciding what ultimately constitutes a discrepancy
Average annual consumption of woody biomass per household in the pre-project devices under the project activity – mean value parameter	Sampling based survey (questionnaire survey/interviews)	Cross-check of a sample of PD's samples (Questionnaire, operation surveys/interviews) including but not limited to following: • Consistency between the information as contained in the survey sheet and found from on-site inspection and interviews. • Enquire about firewood consumption in the project scenario.	VVB results, accounting for duly\ justified differences.

CCIPL has considered para 39 (a) of "Standard for Sampling and surveys for CDM project activities and programmes of activities, Version 09.0 /B05/" for determining the sampling size to be visited by VVB. In case of the current verification, the estimated emission reduction is 26,772 tCO_2e per year, the verification team determined the sample size for acceptance sampling by evaluating the following, using its own professional judgment and guidance in the Standard 'Sampling and surveys for CDM project activities and programme of activities' version 09.0 /09/: Considering Acceptable Quality Level (AQL): 0.5% Unacceptable Quality Level (UQL): 20% and producer risk of 10% and consumer risk of 20% a sample size of 08 was required as per Table2 in the referred Standard /B05/. Acceptance number (c) thus determined for the sample size is 0. CCIPL choose 08 samples to verify the project activity. The validation team selected random samples from PP's sample list. The baseline use of woody biomass was checked during the site visit for the identified samples from areas which were safe and logistically possible to travel.

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

Area of validation findings	No. of CL	No. of CAR	No. of FAR
Compliance with PDD form	-	-	-
Application and selection of methodologies and standardized baselines	-	CAR 01	-
Validity of original baseline or its update	CL 02	CAR 05	-
Estimated emission reductions or net anthropogenic removals	-	CAR 02 CAR 08 CAR 09	-
Validity of monitoring plan	-	CAR 03	-
Crediting period	-	-	FAR 01
Project participants	-	-	-
Specific GS scope on Design Certification Renewal	CL 01 CL 03	CAR 07	-
Post-registration changes	-	CAR 04 CAR 06	-
Stakeholder Consultation		CAR 10	
Others (please specify)	-	-	-
Total	03	10	01

SECTION D. Validation findings

D.1. Compliance with PDD form

Means of validation	Desk Review and Interview
Findings	No finding raised.
Conclusion	CCIPL confirms that the updated version 07.1 of 08/02/2024 and later versions are prepared using GS PDD template version 01.2 of 14/10/2020 which is the latest available template and completed with relevant information as per the template requirement.

D.2. Application and selection of methodologies and standardized baselines

Means of validation	Desk Review and Interview
Findings	CAR 01 was raised and closed satisfactorily. Kindly refer appendix 4 for more clarification.
Conclusion	The project applied the approved small scale methodology AMS-II.G version 13 – Energy efficiency measures in thermal applications of non-renewable biomass /B01/. The applicability conditions of the methodology are discussed below: **Applicability Condition 1:** 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 25 per cent. Refer to the requirements indicated in "Data / Parameter table 14" of methodology 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 VVB **VVB's Assessment –** The project cookstoves are efficient stoves with efficiency 30.92% /04/ which replaces conventional stoves as verified from baseline survey report /05/. Hence, meets the methodology requirement. The efficiency test was based on water boiling test /04/. **Applicability Condition 2:** The aggregate energy savings of a single project activity shall not exceed the equivalent of 60 GWh per year or 180 GWh thermal per year in fuel input. **VVB's Assessment –** With ICS efficiency of 30.92%, which replaces baseline cookstove with efficiency 15% and firewood usage of 4.40 ton per year by baseline stove, to attain maximum annual energy saving of 180 GWh, the project can consider 18,190 number of ICS. However, project developer consider to distribute 16,380 number of ICS. **Applicability Condition 4:** Non-renewable biomass has been used in the project region since 31 December 1989, using survey methods or referring to published literature, official reports or statistics. **VVB's Assessment –** As per EB 67, annex 22, NRB value has been approved for host country Nepal /08/. It further states that the NRB is applicable under AMS-II.G. Therefore, it substantiate that non-renewable biomass has been used since 31 December 1989 in the host country. **Applicability Condition 5:** For cases where the biomass is sourced from renewable sources, the project participants should use a corresponding Type I methodology. **VVB's Assessment –** Biomass is not sourced from renewable sources and hence no Type I methodology is used /B01/. **Applicability Condition 6:** 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). **VVB's Assessment –** It is noted that each project ICS will be allotted with a unique id and end users details will be recorded along with an end user agreement /01/. **Applicability Condition 7:** 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. **VVB's Assessment –** It is noted that each project ICS will be allotted with a unique id and end users details will be recorded along with an end user agreement. Carbon Check (India) Private Ltd. hereby confirms that the selected baseline and monitoring methodology has been previously approved by the CDM Executive Board, and is applicable to the Project, which complies with all the applicability conditions therein and the selected version is valid at the time of submission of the proposed project activity for renewal of crediting period. It is also confirmed that the methodology is correctly applied by comparing it with the actual text of the applicable version of the methodology and there is no deviation from the selected methodology /B01/.

D.3. Validity of original baseline or its update

Means of validation	Desk Review and Interview
Findings	CL 02 & CAR 05 were raised and closed satisfactorily. Kindly refer appendix 4 for more clarification.
Conclusion	As per para 5.1.47 of Gold Standard for global goals principles & requirement /B02/ **'re-definition of Baseline Scenario'** is required at design renewal. The project developer has included the assessment of the validity of the original baseline as per the tool "Assessment of the validity of the original/ current baseline and update of the baseline at the renewal of a crediting period", Version 03.0.1 /B07/. The tool consists of two steps. The first step provides an approach to evaluate whether the current baseline is still valid for the next crediting period. The second step provides an approach to update the baseline in case that the current baseline is not valid anymore for the next crediting period. Step 1: Assess the validity of the current baseline for the next crediting period Step 1.1: Assess compliance of the current baseline with relevant mandatory national and/or sectoral policies There is no mandatory legal requirement for installation of improved cooking stoves in households of Nepal. The policies relevant to the project are 'the Rural Energy Policy', 'the Renewable (Rural) Energy Subsidy Policy' and 'the Renewable (Rural) Energy Subsidy Delivery Mechanism'. The Renewable (Rural) Energy Subsidy Policy 2016 has made provisions of financial subsidy support for the installation of the household ICS. The above policies only provide the incentives for the installation of ICS and do not provide any obligations or enforced targets, nor do they ban the use of fuel wood for cooking. Moreover, the project is not a government sponsored project and does not claim any incentive. Therefore, relevant policies does not impact the original baseline. Step 1.2: Assess the impact of circumstances The project involves household ICS replacing firewood based cooking system. In the absence of the project, firewood would have been used for cooking purpose. There are no new national/sectoral policies/legislation/circumstance that could affect the baseline scenario during the renewal of the crediting period. There is no change observed in this regard and it can be concluded that the conditions used to determine the baseline emissions in the previous crediting period are still valid. Step 1.3: Assess whether the continuation of use of current baseline equipment(s) or an investment is the most likely scenario for the crediting period for which renewal is requested. The baseline scenario identified at the validation of the project activity was the continuation of the current practice without any investment. The continuation of the current practice does not need any further investment. The baseline scenario identified during validation confirmed that NRB is used in Nepal since 31 December 1989. A recent baseline survey by PD in 2021 /05/ confirms the NRB use. These

scenarios justifies that the baseline scenario is not impacted during the renewal of crediting period and continuation of pre-defined baseline scenario is the most likely scenario for the crediting period for which renewal is requested.

Step 1.4: Assessment of the validity of the data and parameter
"Where emission factors, values or emission benchmarks are used and determined only once for the crediting period, they should be updated, except if the emission factors, values or emission benchmarks are based on the historical situation at the site of the project activity prior to the implementation of the project and cannot be updated because the historical situation does not exist anymore as a result of the CDM project activity".

Following data parameters are updated from registered PDD:

Data/Parameters	Value in registered PDD	Value in updated PDD	Assessment
Emission factor for the substitution of non-renewable woody biomass by similar consumers $EF_{projected\_fossilfuel}$ (tCO_2/TJ)	64.4	64.4	The updated value is the default value provided in the applied methodology AMS-II.G version 13. Hence, correctly applied for the second crediting period.
Quantity of woody biomass used per ICS in the absence of the project activity ,$B_{old,i,j}$ (tonne/HH/year)	4.23	4.40	Project developer has conducted a baseline study in the project province in August 2021 to check the firewood consumption in conventional cooking practice following KPT. As per the survey the resulted value is 4.40 tonne/HH/year /05/. The study conducted following UNFCCC sampling guideline and guidance from 'Gold Standard Methodology "Technologies and Practices to Displace Decentralized Thermal Energy Consumption". Hence, the updated value is accepted for the second crediting period.
Efficiency of the device of each type i and batch j implemented as part of the project activity, $\eta_{new,i,j}$ (%)	22.1% 25.17%	30.92%	The existing mud & metallic ICS were of 22.10% & 25.17% efficiency with technical life of 4 years and 5 years respectively, which are replaced after end of its technical life with metallic ICS of 30.92% efficiency. The efficiency of ICS were tested and certified by RET, Nepal and hence accepted /04/. Moreover, as per paragraph 38 of the applied methodology

			AMS-II.G version 13 /B01/, 'project participants are allowed to replace the project cookstoves whose lifetime has ended with new project cookstoves for the existing project as long as they are replaced within the crediting period and 'project devices are replaced with the same of more efficient devices' (para 39 (a)). Since, project devices are replaced with a higher efficiency ICS and within the crediting period of the project, the updation and replacement is accepted.
Fraction of woody biomass saved by the project activity in year y that can be established as non-renewable biomass, $f_{NRB,y}$	86.1%	91.44%	The value of fNRB in Nepal is updated from 1st CP based on the letter /08/ from 'Ministry of Forest and Environment' Nepal dated 22/03/2022 which suggested to use value of fNRB as 91.44% to all carbon projects/Program of Activities (PoAs)/Mitigation projects etc.
Efficiency of the system being replaced, $\eta_{old,i,j}$ (%)	10%	15%	The default value of 15% as per para 17 (a) of tool 33 /B08/ is considered in line with methodological /B01/ requirement.

Considering the guidance provided under this step, calculation baseline emissions are updated for the next crediting period as per step 2.

Step 2: Update the current baseline and the data and parameters Since, the existing baseline scenario is still valid, this step is not applicable.

Finally, it is concluded that the original baseline scenario is valid and assessment is complete as per "Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period v3.0.1.

The validation team also noted the project falls under 'GS4GG Community Services Activity Requirements' and Para 4.1.7 of "Community Service Activity Requirement" /B03/ has not made re-assessment of baseline mandatory for CSA project for first renewal.

Carbon Check (India) Private Ltd. concludes that the original baseline is valid and assessment is done as per methodological tool 'Tool for the assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period v3.0.1' /B03/. The assessment meets GS4GG VVS Standard version 1.0 /B06/ and GS4GG principle and requirements /B02/ paragraph 5.1.47. Moreover, the project falls under 'GS4GG Community Services Activity Requirements' and Para 4.1.7 of "Community Service Activity Requirement" /B03/ has not made re-assessment of baseline mandatory for CSA project for first renewal.

D.4. Estimated emission reductions or net anthropogenic removals

Means of validation	Desk Review and Interview
Findings	CAR 02, CAR 08 & CAR 09 were raised and closed satisfactorily. Kindly refer appendix 4 for more clarification.
Conclusion	The emission reductions for the project activity is estimated as per equation 1 of AMS-II.G version 13 as follows:

$$ER_y = \sum_i \sum_j ER_{y,i,j} - LE_y$$

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
ER_y	=	Emission reductions during year *y* in t CO_2e
$ER_{y,i,j}$	=	Emission reductions by project device of type *i* and batch *j* during year *y* in t CO_2e
LE_y	=	Leakage emissions in the year *y*

$$ER_{y,i,j} = B_{y,savings,i,j} \times N_{o,i,j} \times n_{y,i,j} \times \mu_y \times f_{NRB,y} \times NCV_{biomass} \times EF_{projected\_fossil\ fuel}$$

Where:

$\overline{B_{v,savinas,i,i}}$	=	Quantity of woody biomass that is saved per cookstove device of type *i* and batch *j* during year *y* (tonnes)
$\overline{f_{NRB,v}}$	=	Fraction of woody biomass that can be established as non-renewable biomass (fraction or %)
$\overline{NCV_{biomass}}$	=	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')
$\overline{EF_{\ projected\ fossilfuel}}$	=	Emission factor of fossil fuels projected to be used to substitute non-renewable woody biomass by similar consumers (tCO_2e/TJ).
$\overline{N_{0,i,i}}$	=	Number of project devices of type *i* and batch *j* commissioned (number)
$\overline{n_{v,i,i}}$	=	Proportion of commissioned project devices of type *i* and batch *j* ($\overline{N_{0,i,i}}$) that remain operating in year *y* (fraction)
$\overline{\mu_v}$	=	Adjustment to account for any continued use of pre-project devices during the year *y*

$B_{y,savings}$ (Quantity of woody biomass that is saved) is determined using option 3 of the methodology as below:

$$B_{y,savings,i,j} = B_{old,i,j} \times \left(1 - \frac{\eta_{old,i,j}}{\eta_{new,i,j}}\right)$$

	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* ($B_{old,i,j}$) is determined ex-ante to be 4.40 ton/household/year as per baseline survey /05/. Efficiency of pre-project device ($\eta_{old,i,j}$) is taken 15% default value as per applied methodology /B01/. Efficiency of project device ($\eta_{new,i,j}$) is taken 30.92% as per test report from from RETs /04/. Number of project devices of type *i* and batch *j* operating during year *y* is 18,190 which is the maximum number of ICS that can be included in the project. Fraction of woody biomass that can be established as non-renewable biomass (f_{NRB}) is calculated following procedures outlined in the tool to calculate fraction of NRB referred in the methodology AMS-II.G, version 13. The resulted f_{NRB} is 91.44%. The f_{NRB} is endorsed by Ministry of Forest and Environment, Nepal dated 22/03/2023 which is calculated as per the tool and therefore, justifies the f_{NRB} value for the project activity /08/. Accordingly, Baseline emissions estimated to be 28,182 tCO_2eq. As per paragraph 41 of the methodology, $B_{y,savings}$ is multiplied by a net to gross adjustment factor of 0.95 to account for leakage. Therefore, the net emission reduction is 26,772 tCO_2eq per year. Carbon Check (India) Private Ltd. confirms, the updated PDD correctly lists assumption and data used by the PD for estimating emission reduction including their references and sources. Source of data and assumptions are correctly quoted and interpreted in the updated PDD. All values used in the updated PDD are considered reasonable in the context of the proposed GS project activity. The baseline methodology and corresponding tools have been correctly applied to calculate project, baseline and leakage emissions, and emission reductions. All estimates of the baseline emissions can be replicated using the data and parameter values provided in the updated PDD.

D.5. Validity of monitoring plan

Means of validation	Desk Review and Interview
Findings	CAR 03 was raised and closed satisfactorily. Kindly refer appendix 4 for more clarification.
Conclusion	The monitoring plan in the updated PDD is consistent with the latest methodology, AMS-II.G Version 13 /B01/. Validation team confirmed from the document review that the list of parameters including the means of monitoring is described in accordance with the applied methodology. Following are the parameters to be monitored: a) Proportion of commissioned project devices of type *i* and batch *j* that remain operating in year *y* –the parameter shall be monitored annually following sample survey as per the applied methodology. b) Efficiency of the device of each type i and batch j implemented as part of the project activity - A default schedule of linear decrease in efficiency up to the terminal efficiency assumed as 20 per cent shall be applied through the 6 years of life span of the project device (As per paragraph 37 (a) of the methodology). c) Adjustment to account for any continued use of pre-project devices during the year *y* (μ_y)- the parameter shall be monitored annually following sample survey as per the applied methodology d) Life span- The technical life of project ICS is 6 years as per manufacturer specification /12/. The life span of each project device shall be monitored from date of commissioning which is to be also monitored. e) Date of commissioning of batch j- To establish the date of commissioning, the Project Participant may opt to group the devices in “batches” and the latest date of commissioning of a device within the batch shall be used as

the date of commissioning for the entire batch which shall me monitored and recorded as in when the projects ICS are commissioned.

f) Date of commissioning of project device I – date of commissioning of project devices shall be monitored and recorded as in when commissioned.

g) Number of project devices distributed per household- Project developer shall record number of project ICS distributed to each household as in when distributed.

Apart from monitoring relevant parameter under SDG 13, parameters pertaining to SDG 3, SDG 7 and SDG 8 are consistent with registered PDD /03/. The monitoring plan of those parameters are discussed below:

SDG Indicator	Parameter	Validation
SDG 3 – Good health & well being	Livelihood of poor (Users' perception on reduction in fuel collection time and cooking time)	The improvement in health and reduction of incidence of disease caused by air pollutants to the beneficiaries will be recorded during surveys. The monitoring of this parameter will be done annually; the project device i.e. ICS will be randomly selected using the sampling plan. The indicator is rightly chosen for the project activity and monitoring is in line with applied methodology and chosen indicator.
SDG 7- Affordable and Clean Energy	Increased Access to clean energy	Access to clean energy is ensured through monitoring the number of project devices commissioned and operating within the project activity annually. The operational rate will ensure the increase access to clean energy to users. The indicator is rightly chosen for the project activity and monitoring is in line with applied methodology and chosen indicator.
SDG 8- Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all	Increased employment opportunities	The project implementation and maintenance required manpower. The project generated employment which shall be monitored annually to ascertain the number of jobs the project created and income generation. The actual records from project developers shall be maintained. The indicator is rightly chosen for the project activity and monitoring is in line with applied methodology and chosen indicator.

The monitoring plan is still same in consistent with the latest methodology and hence valid for the next crediting period. Carbon Check (India) Private Ltd. is of the opinion that monitoring plan is feasible within the project design.

Carbon Check (India) Private Ltd. confirms that the monitoring plan included in the updated PDD /01/ is valid as per the applied methodology /B01/ and confirms the registered PDD.

D.6. Crediting period

Means of validation	Desk Review and Interview
Findings	FAR 01 is raised.

Conclusion	As per para 5.1.45 of GS4GG principles and requirement /B02/, to maintain Gold Standard Certified Project status beyond five years, a Project must undergo Design Certification Renewal. The second crediting period for the project starts from 02/10/2023 to 01/10/2028, immediately after the end of the first crediting period (02/10/2018 to 01/10/2023). The project in its first crediting period implemented mud and metallic based ICS with technical life of 4 years and 5 years respectively which were installed in August 2018 and ended its technical life by September 2023. Therefore, in line with the applied methodology and registered PDD, project developer has replaced the project ICS with more efficient ICS which has technical life of 6 years as per certificate from manufacturer /12/. Therefore, the project is eligible for second crediting period. Carbon Check (India) Private Ltd. confirms that the second period was correctly and clearly defined as from 02/10/2023 to 01/10/2028 as per GS rule.

D.7. Project participants

Means of validation	Desk Review and Interview
Findings	No finding raised.
Conclusion	The project developer is Value Network Venture Advisory Services Pte. Ltd. and project participant is Environment Protection Center. This is as per GS registry details and revised cover letter /09/ of the project. The same is found mentioned in the updated PDD which PD has provided. Carbon Check (India) Private Ltd. confirms that the project developers of the project activity is listed in the updated PDD /01/ and this information is consistent with the information provided in the section that contains the contact information for project developers.

D.8. Specific GS scope on design certification renewal

Means of validation	Desk Review and Interview
Findings	CL 01, CL 03 & CAR 07 were raised and closed satisfactorily. Kindly refer appendix 4 for more clarification.
Conclusion	As per paragraph 5.1.47 of GS4GG principle and requirement /B02/, the 'Design Certification Renewal scope is assessed as below: a) Changes in the Project as related to the General Eligibility Criteria -There is no change in the project which may impact the project eligibility. The project still falls under small-scale category and implemented within the same geographical boundary as the registered PDD /03/. b) Incorporation of any relevant updates to the Gold Standard Requirements - There is no relevant update found to be incorporated for the project during the second crediting period. c) Re-definition of baseline scenario and any impact of change on the eligibility principles, criteria and requirements - The project falls under community services activity and as per para Para 4.1.7 of "Community Service Activity Requirement" /7/, re-assessment of baseline is not mandatory for CSA project for first renewal. However, PD has assessed the baseline following UNFCCC guideline and confirms the existing baseline is still valid. d) Any gold standard activity, product and methodology-specific requirement - The project meets community services activity requirements although there is no specific requirement to be met during the renewal of the project. The applied methodology for claiming emission reductions is updated to its latest version and conditions as per latest version is justified in the updated PDD /01/. e) Demonstration of ongoing financial need, where relevant-see ongoing financial need - The ongoing financial need /10/ derived from GS certification is necessary to reduce unattractiveness of the project and enhance the project's operation in the 2nd crediting period. All the new ICS units will be distributed to the HH free of cost. The investment incurred and other associated costs will be recovered through the sales revenue of VERs. Sales revenue will also used for repair and maintenance and towards project cycle management activities including the GS costs and project validation and verification costs. During the onsite interviews with representatives of PD, the VVB has confirmed the same. In section B.5.2 has provided a detailed

	explanation of expenses due to maintenance, staff employment and other additional costs including equipment installation and expansion of project. PD further states that these costs will be recovered through revenue generated from sales of VER. The explanation provided by PD is deemed acceptable to the VVB. Therefore, VVB confirms the OFN for the project during the second CP. CCIPL confirms that the project activity is within the required scope of GS principle and requirements which are applicable at design renewal.

D.9. Changes to the project design

Means of validation	Desk Review and Interview
Findings	CAR 04 & CAR 06 were raised and closed satisfactorily. Kindly refer appendix 4 for more clarification.
Conclusion	A change in project design has been proposed from the registered project design as below: In the registered PDD, the project ICS was mud based with certified efficiency of 22.10% and mettalic with certified efficiency 25.17%. After end of its technical life of 4 years for mud ICS and 5 years for mettalic ICS, project developer replaced it with more efficient metallic stoves with efficiency of 30.92%. Therefore, the impact of design change on below points are discussed as below: a) The applicability and application of the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents with which the project activity has been registered; The replacement of old project ICS (mud & Mettalic) with more efficient metallic ICS does not have any impact on applicability of the applied methodology /B01/ (AMS-II.G , version 13.0) as except the technology of the ICS and its efficiency the users, its usage and baseline remains same. Therefore, even after the proposed design change the proposed activity is applicable to the applied methodology. b) The compliance of the monitoring plan with the applied methodologies, the applied standardized baselines and the other applied methodological regulatory documents There is no change to the monitoring plan of the project activity from the registered monitoring plan. PD continue to monitor all parameters as per the applied methodology which are same as the registered monitoring plan. PD has kept the same provision under the monitoring plan which is not changed with the proposed change. Hence, monitoring plan remains in compliance with the applied methodology. c) The level of accuracy and completeness in the monitoring of the project activity compared with the requirements contained in the registered monitoring plan; The level of accuracy and completeness in the monitoring plan does not change as the same monitoring and measuring arrangements are in place even after the proposed design change. d) The additionality of the project activity The project is auto additional as per registered PDD following provisions of community service activity requirements. The project still meets the community service activity requirements and hence complies the auto additional criteria. As per para 4.1.9 of CSA requirement version 1.2 the project being implemented in LDC (Nepal) the project is auto additional. Therefore, the project remains additional with the proposed design change. e) The scale of the project activity Due to the proposed change there is no impact on the scale of the project activity as project proponent considered only more energy efficient ICS which can be considered under small-scale category.

	The change in the project design reported does not impact the following: • The applicability and application of the applied methodology • Compliance of the monitoring plan with the applied methodology • The level of accuracy and completeness in the monitoring • The additionality of the project activity • The scale of the project activity Moreover, the change or replacement of project ICS is already allowed as per para 39 of the applied methodology /B01/ (AMS-II.G, v13.0) 'at the end of the life span of project devices..(a) project devices are replaced with the same or more efficient devices. Project devices will be replaced with more efficient devices. The efficiency certificate /04/ of new devices are checked and found to be correct. Hence, the change is acceptable.

D.10. Post-registration changes

Type of post-registration changes (PRCs)	Confirmation (Y/N)	Validation report for PRCs	
		Version	Completion date
Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents[1]	N	NA	NA
Corrections	N	NA	NA
Change to the start date of the crediting period	N	NA	NA
Inclusion of a monitoring plan	N	NA	NA
Permanent changes to the registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines, or other methodological regulatory documents	N	NA	NA
Changes to the project design	Y	1.2	12/02/2024
Changes specific to afforestation and reforestation project activities	N	NA	NA

D.11. Stakeholders consultation

>>

During the RCP stage, the stakeholder feedback round /06/ was reinitiated by the PD to take the feedback of the stakeholders on the project till date and on the design change. The reinitiated SFR /06/ round was started from 19/05/2023 and ended on 19/06/2023. Feedbacks were asked from relevant stakeholders. As stated in section (E) of the updated PDD /01/, there were no negative comments received through the feedback and the SFR round. This information is checked and confirmed by the validation team.

SECTION E. Internal quality control

>>

The final validation report before being submitted to the client is subjected to an independent technical review to confirm that all validation activities has been completed according to the pertinent CCIPL's procedures. The technical review is performed by a technical reviewer(s) qualified in accordance with the CCIPL's qualification procedure.

SECTION F. Validation opinion

>>

Value Network Venture Advisory Services Pte. Ltd., appointed /11/ the VVB, Carbon Check (India) Private Ltd., (CCIPL) to perform the validation (renewal of crediting period) of the GS project (GS 7544) 'Clean Cooking Solutions for rural Nepal' in Nepal.

[1] Other standards, methodologies, methodological tools and guidelines (to be) applied in accordance with the applied(selected) methodologies are collectively referred to as the other (applied) methodological regulatory documents).

The validation was performed in accordance with latest GS4GG principles and requirements /B02/, GS4GG, latest version of Validation and Verification Standard /B06/ and related Standards/Guidance and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The project will result in reductions of greenhouse gas (GHG) emissions that are real, measurable and give long-term benefits to the mitigation of climate change, as stated in the updated PDD /01/. In the opinion of the validation team, the project meets all relevant GS4GG, UNFCCC, CDM criteria and all relevant host country criteria.

The review of the updated PDD /01/ and the subsequent follow-up interviews /07/ have provided validation team with sufficient evidence to determine the validity of the original baseline. The PDD correctly applies the latest version of the small-scale methodology AMS-II.G 'Energy efficiency measures in thermal applications of non renewable biomass' version 13 /B01/ and meets all relevant criteria therein. The monitoring arrangements described in the monitoring plan are feasible within the project, and it is validation team's opinion that the project implementer is able to implement the monitoring plan and it is deemed likely that the forecasted emission reductions of 26,772 tCO_2e per year from the project during the second crediting period will be achieved, given that the underlying assumptions do not change.

During the course of validation ten (10) CARs, three (03) CLs and one (01) FAR were identified on initially submitted revised PDD. All the CLs & CARs have been resolved by project developer however, FAR 01 is open.

In summary, it is validation team's opinion that the project "Clean Cooking Solutions for rural Nepal" (GS Reference number 7544) meets all relevant GS4GG and UNFCCC requirements for the renewal of the crediting period. Hence CCIPL requests the renewal of the project activity for the second crediting period from 02/10/2023 to 01/10/2028.

Appendix 1. Abbreviations

Abbreviations	Full texts
BE	Baseline Emissions
CDM	Clean Development Mechanism
CEE	Central Environmental Authority
CAR	Corrective Action Request
CCIPL	Carbon Check (India) Private Ltd.
CL	Clarification Request
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
DR	Desk Review
VVB	Designated Operational Entities
DVR	Draft Validation Report
EB	CDM Executive Board
EF	Emission Factor
ER	External Resource
ER	Emission Reduction
FA	Final Approval
FAR	Forward Action Request
FVR	Final validation Report
FSR	Feasibility Study Report
GHG	Greenhouse gas(es)
GSF	Gold standard Foundation
GS4GG	Gold standard for Global Goals
I	Interview
IPCC	Intergovernmental Panel on Climate Change
IR	Internal resource
MH	Maharashtra
MW	Mega Watt
MWh	Mega Watt hours
PDD	Project Design Document
PP	Project Participant
OSV	On Site Visit
QC/QA	Quality control /Quality assurance
SS	Sectoral Scope
TA	Technical Area
TR	Technical Review
UNFCCC	United Nations Framework Convention on Climate Change
VER	Verified Emission Reduction
VVB	Validation and Verification Body
VVS	Validation and Verification Standard

Appendix 2. Competence of team members and technical reviewers

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Rishi K Raychoudhury

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☒ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ Local Expert for India			

in the following Technical Areas:

☐ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1	☐ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022	Initial Adoption
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon Check (India) Private Limited

Certificate of Competency

Mr. Amit Anand

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☒ Plastic Waste Expert
☒ CCB Expert	☐ Legal Expert	☒ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ Local Expert for India and RSA			

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☒ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☒ TA 14.1	☒ TA 15.1	☐ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022[1]	Annual revision
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Carbon CHECK

Carbon Check (India) Private Limited

Certificate of Competency

Prasan Karmacharya

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☐ Validator	☐ Verifier	☐ Team Leader	☐ Technical Expert
☐ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ SDG+	☐ Social no-harm(S+)	☐ Environment no-harm(E+)	☐ CCB Expert
☐ Financial Expert	☒ Local Expert for Nepal		

in the following Technical Areas:

☐ TA 1.1	☐ TA 1.2	☐ TA 2.1	☐ TA 3.1	☐ TA 4.1
☐ TA 4. n	☐ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☐ TA 13.1	☐ TA 13.2
☐ TA 14.1	☐ TA 15.1			

Issue Date
03rd May 2023

Expiry Date
02nd May 2024

Mr. Vikash Kumar Singh
Compliance Officer

Mr. Amit Anand
CEO

CCIPL_FM 7.9 Certificate of Competency_V2.1_012023

Carbon Check (India) Private Limited

Certificate of Competency

Mr. S Ranganathan

has been qualified as per CCIPL's internal qualification procedures in accordance with the requirements of CDM AS (V7.0), ISO/IEC14065:2020, ISO/IEC 17029:2019 and other applicable GHG programs:

for the following functions and requirements:

☒ Validator	☒ Verifier	☒ Team Leader	☒ Technical Expert
☒ Technical Reviewer	☐ Health Expert	☐ Gender Expert	☐ Plastic Waste Expert
☐ CCB Expert	☐ Legal Expert	☐ Financial Expert	☐ Environmental, Health and Safety financial matters
☒ SDG+	☒ Social no-harm(S+)	☒ Environment no-harm(E+)	
☒ Local Expert for India			

in the following Technical Areas:

☒ TA 1.1	☒ TA 1.2	☐ TA 2.1	☒ TA 3.1	☐ TA 4.1
☐ TA 4. n	☒ TA 5.1	☐ TA 5.2	☐ TA 7.1	☐ TA 8.1
☐ TA 9.1	☐ TA 9.2	☐ TA 10.1	☒ TA 13.1	☒ TA 13.2
☐ TA 14.1	☐ TA 15.1	☐ TA 16.1		

Issue Date

5th December 2023

Expiry Date

31st December 2024

Priya Suman

Ms. Priya Suman
Compliance Officer

Sanjay Agarwalla

Mr. Sanjay Kumar Agarwalla
Technical Director

Revision History of the document:

Revision date	Summary of changes
2022	Initial Adoption
Jan 2023	Annual revision
Dec 2023	Change in the template due to revision in TA and function

CCIPL_FM 7.9 Certificate of Competency_V4.0_112023

[1] Please refer to previous version of FM 7.9 for the revision history

Appendix 3. Documents reviewed or referenced

No.	Author	Title	References to the document	Provider
/01/	VNV Advisory Pte. Ltd.	Updated GS PDD for the project 'Clean Cooking Solutions for rural Nepal': GS7544_Project Design Document_2nd CP_v7.1	v7.1, 08/02/2024	PD
/02/	VNV Advisory Pte. Ltd.	Estimated ER calculation Spreadsheet: 7544_Ex-ante_ER_Estimate_CP2-v02	Version-02	PD
/03/	VNV Advisory Pte. Ltd.	Registered GS PDD and Validation report for the project "Clean Cooking Solutions for rural Nepal"	V4.1 & v1.2	PD
/04/	RETS (AEPC)	Performance, emissions, safety and durability test of ICS (NEP-STAR 5).	24/03/2022	PD
/05/	Prakriti Consult Pvt. Ltd.	Baseline survey report for Promoting Improved Cookstoves in Province-2 of Nepal	August 2021	PD
/06/	VNV Advisory Pte. Ltd.	Stakeholder feedback Round	19/05/2023	PD
/07/	CCIPL	Onsite Audit Records	22/08/2023	VVB
/08/	Ministry of Forests and Envionment, Nepal	Information note: Default values of fraction of non-renewable biomass in Nepal	22/03/2022	PD
/09/	VNV Advisory Pte. Ltd.	Revised Cover Letter	29/11/2023	PD
/10/	VNV Advisory Pte. Ltd.	ODA Declaration	16/01/2024	PD
/11/	CCIPL	Contract (between VNV & CCIPL for RCP)	05/05/2023	VVB
/12/	EPC	Manufacturer Specification of new ICS (NEP Star 5)	02/02/2024	PD
/B01/	UNFCCC	Small-scale Methodology AMS-II.G 'Energy efficiency measures in thermal applications of non-renewable biomass'	Version 13.0	publicly available
/B02/	GS4GG	Gold Standard for the Global Goals - Principles & Requirements	Version 1.2	publicly available
/B03/	GS4GG	Gold Standard for the Global Goals - CS Activity Requirements	Version 1.2	publicly available
/B04/	UNFCCC	Guidelines for Sampling and Surveys for CDM Project activities and Programme of Activities	Version 04.0	publicly available
/B05/	UNFCCC	Standard for Sampling and surveys for CDM project activities and programmes of activities	Version 09.0	publicly available
/B06/	GS4GG	Gold Standard for the Global Goals – Validation and Verification Standard	Version 1.0	publicly available
/B07/	UNFCCC	Methodological tool 'Assessment of the validity of the original/current baseline and update of the baseline at the renewal of the crediting period'	Version 03.0.1	publically available
/B08/	UNFCCC	Methodological tool 'Default values for common parameters'	Version 02.0	Publicly available

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

Table 1. CL from this validation (RCP)

CL ID	01	**Section no.**	D.8	**Date:** 03/10/2023
Description of CL				
1) *PD is requested to provide the distribution plan of new ICS for the project activity.* ***2)*** *PD is requested to provide evidence for efficiency of new ICS (NEP Star 2).* ***3)*** *PD is requested to clarify whether fresh stakeholder consultation or feedback round is conducted for the project at design renewal.*				
Project participant response				**Date:** 28/11/2023
1) The distribution plan of the new ICS for the project activity is presented in section A.1 of the revised PDD (version 6.0). *2) The evidence of the efficiency of new ICS (NEP Star 2) provided with this response package. Please see SD#1.* *3) PD confirms that the stakeholder feedback round was conducted for the project at design renewal. Email screenshots of initiating and concluding the SFR are submitted as evidence. Please see SD#2.*				
Documentation provided by project participant				
SD#1_Efficiency test certificate *SD#2_Evidence for SFR*				
VVB assessment				**Date:** 11/01/2024
1) *PD has provided distribution plan for new ICS in section A.1 of the revised PDD. Hence, CL point is closed.* ***2)*** *PD has provided efficiency certificate of New ICS i.e., NEP Star 2 which is valid till 17/03/2023. However, PD is requested to clarify how the certificate applicable to new ICS, which is going to be distributed from January 2024. Hence, CL point is open.* ***3)*** *PD has provided evidence for SFR conducted for renewal of crediting period for the project activity, which VVB found appropriate. Hence, CL is closed.*				
Project participant response				**Date:** 16/01/2024
2) Considering that the test certificate of NEP Star 2 has expired and the implementation has not yet happened, PD has opted to implement another model (NEP Star 5) of the ICS as the replacement ICS under the project. The PDD and the ER calculation sheet has been thoroughly revised to accommodate this change and the certificate of the same is submitted with this response package. Please see SD#4				
Documentation provided by project participant				
SD#4_Efficiency test certificate-NEPStar-5				
VVB assessment				**Date:** 31/01/2024
PD has revised the model of ICS to be distributed i.e., from NEP star 2, now PD will distribute NEP Star 5 in this crediting period. PD has provided efficiency certificate from RETS Nepal dated 24/03/2022, for NEP star 5 ICS and accordingly revised PDD and Ex-ante estimated ER sheet. Hence, CL is closed.				

CL ID	02	**Section no.**	D.3	**Date:** 03/10/2023
Description of CL				
1) *PD is requested to clarify how the baseline study of 2021 still holds good for the current baseline scenario of the Host Country and also how this baseline study is appropriate for the project activity.*				

2) *In section B.4 of the updated PDD, in step 1.4 PP is requested to provide weblink for new f_{NRB} database of Nepal released in March 2022.*

3) *During OSV one of household out of 8 denied about KPT done at her house. PP is requested to clarify how the value of B_{old} is justified for baseline scenario.*

4) *During OSV it, HH mentioned that KPT is done only for 1 or 2 days whereas as per baseline survey report it is done for 3 days which is mentioned by PP. PP is requested to clarify the same.*

5) *PP is requested to clarify what QA/QC measures have out in place to ensure that the mud ICS which are now replaced after its end of technical life will not be continued along with the new metallic ICS.*

Project participant response	**Date:** 28/11/2023

1) *The project fall under the community services activity. Para 4.1.7 of the "Community Services Activity Requirements, version 1.2" requires projects falling under category undergo renewal of crediting period every 5 years while waives the project from undergoing baseline reassessment i.e. the same baseline may remain valid for first two crediting periods; therefore the baseline report under consideration is valid to be applied during the second CP. Moreover, the baseline was also conducted in the geographical area that encompasses the project districts; therefore the baseline is appropriate for the project activity.*
2) *The new fNRB value endorsed by the DNA is not separately available through a web-link. However, there are other approved Gold Standard and VCS projects that have applied the same fNRB value that confirmed through their PDD. Please refer to the GS Project 11785 (https://registry.goldstandard.org/projects/details/3727) and VCS Project 2999 (https://registry.verra.org/app/projectDetail/VCS/2999). A copy of the letter by the MoFE is submitted with this response package. Please see SD#3.*
3) *The stated household member the audit team interviewed may have denied about the KPT conducted as she may not have been present at the house when the project team conducted the KPT survey. Moreover, this could also have happened due to human memory as the survey was conducted almost two years before the validation site visit. Moreover, the baseline firewood value calculated using the UN statistics and included in section B.4 (step 1.4) depict comparable results to the one resulting from the survey. This validates the use of value applied for B_{old} which is conservative compared to the value calculated referring to UN stats.*
4) *The KPT was undertaken for 3 days, where the households were provided with the pre-weighed firewood. Considering the inconsistent information from the household on the KPT, firstly, the household member reporting during OSV may not have been the same who was there during the KPT and secondly, it could also be a result of human memory as the survey was conducted over a year ago.*
5) *In order for the households using the mud ICS to receive metallic one, they will be required dismantle their existing mud-ICS. This will be confirmed at the time of installation of new ICS. Similarly, the parameter is subject to monitoring throughout the crediting period. Since, mud cooking stoves may also be built at site by the project device user, the adjustment to account their use will be captured during the monitoring survey. A procedure regarding the ICS replacement is outlined in section A.3 of the PDD (version 7.0).*

Documentation provided by project participant

SD#3_fNRB confirmation by ministry

VVB assessment	**Date:** 11/01/2024

1) *As per para 4.1.7 of the "Community Services Activity Requirements", version 1.2,* ***For the first renewal, CSA Projects are not required to reassess the Baseline Scenario.*** *However, PD has conducted baseline survey in geographical area where project activity will be implemented. VVB found the baseline survey appropriate. Hence, CL point is closed.*

2) *PD has provided letter from 'Ministry of Forest & Environment' dated 22/03/2022 in which it is stated that f_{NRB} value for geographical area of the project should apply 91.44%. VVB has cross verified the same from the other registered project which is found appropriate. Hence, CL point is closed.*

3) *PD has conducted baseline survey value and accordingly the value of B_{old} is 4.40 tonnes/household/year whereas based on UN statistical data (from Food and Agriculture Organization) value comes to 4.507 tonnes/household/year. PD has opted conservative approach for consideration of the value of B_{old}. Hence, CL point is closed.*

4) *PD has conducted KPT for 3 days and provided pre-weighed firewood. During onsite visit, for HHs the person interviewed was family member of the person who was interviewed during baseline survey which holds the possibility of human error. Moreover, PD has considered value of B_{old} is 4.40 tonnes/household/year from baseline survey which is conservative compared to UN statistical data (from Food and Agriculture Organization) value which is 4.507 tonnes/household/year. Hence, CL point is closed.*
5) *PD has planned to removed Mud ICS while implementing new ICS along with it if mud ICS found operational during verification PD will account the same during monitoring survey. VVB found PD QA/QC procedure appropriate. Hence, CL point is closed.*
VVB found PD response appropriate for above raised points. Hence, CL is closed.

CL ID	03	**Section no.**	D.8	**Date:** 12/01/2023
Description of CL				
PD is requested to provide ODA declaration, mentioned in section A.1.1 of the updated PDD.				
Project participant response				**Date:** 16/01/2024
The ODA declaration is provided with this round of response. Please see SD#5.				
Documentation provided by project participant				
SD#5_7544-ODA-Declaration				
VVB assessment				**Date:** 22/01/2024
PD has provided appropriate ODA declaration for the project activity and included details in section A.1.1 of the updated PDD. Hence, CAR is closed.				

Table 2. CAR from this validation (RCP)

CAR ID	01	**Section no.**	D.2	**Date:** 03/10/2023
Description of CAR				
1) *In section B.2 of the updated PDD, applicability condition at S. N. 1 & 6 is not as per applicable methodology. PD is requested to apply applicability criteria of the applicable methodology i.e., AMS-II. G v13.0.* ***2)*** *In section B.2 of the updated PDD, project applicability condition at S. N. 7 & 8 is not appropriate as per the applicable methodology. PD is requested to make section B.2 of updated PDD consistent as per applicable methodology.* ***3)*** *In section B.4 of the updated PDD under step 1.4 and step 2.2 the version of the methodology mentioned is not appropriate. PD is requested to make section B.4 of updated PDD consistent as per applicable version of the methodology.*				
Project participant response				**Date:** 28/11/2023
1) The applicability condition at SN 1 & 6 in section B.2 of the revised PDD (version 6.0) have been removed as they are included as applicability criteria in the applicable methodology. *2) The applicability condition at SN 7 & 8 in section B.2 of the revised PDD (version 6.0) have been appropriately revised.* *3) The inconsistencies identified in the stated sections of the PDD have been revised appropriately in section B.4 of the revised PDD (version 6.0)*				
Documentation provided by project participant				
VVB assessment				**Date:** 11/01/2024
1) *PD has made the appropriate changes in section B.2 of the revised PDD. Hence, CAR point is closed.* ***2)*** *PO has made the appropriate changes in section B.2 regarding applicability condition as per applicable methodology version. Hence, CAR point is closed.* ***3)*** *PO has rectified version of applicable methodology in section B.4 of the revised PDD. However, PD is requested to rectify the applicable version of methodology in other section of updated PDD. Hence, CAR is open.*				
Project participant response				**Date:** 16/01/2024

3) PD noted that there were yet few inconsistencies in the revised PDD, all the methodological version related inconsistencies are corrected in the revised PDD (version 7.0)
Documentation provided by project participant
VVB assessment **Date:** 22/01/2024
PD has revised the PDD and used applicable version of methodology across the different section of PDD. Hence, CAR is closed.

CAR ID	02	**Section no.**	D.4	**Date:** 03/10/2023
Description of CAR				
In section B.6 of the updated PDD, the process used for calculating quantity of woody biomass saved is not matching with the process mentioned in step 2.2 of section B.4. PP is requested to rectify and mention appropriate process.				
Project participant response				**Date:** 28/11/2023
The method to calculate the quantity of biomass saved in the section B.6 of the revised PDD is correct as per the methodology. Para 28 of the applied methodology allows applying one of the four options; option 1-Thermal Energy Output (para 29), option 2-Kitchen Performance Test (para 31), option 3-Water Boiling Test (para 32) and option 4-Controlled Cooking Test (para 33) to calculate the quantity of biomass saved. The application WBT approach discussed in section B.6 of the PDD is not related to the KPT mentioned in step 2.2 of the section B.4 of the PDD.				
Documentation provided by project participant				
VVB assessment				**Date:** 12/01/2024
PD has appropriately used option provided in para. 28 of the applicable methodology to calculate quantity of biomass saved, in section B.4 and B.6 of the updated PDD. Hence, CAR is closed.				

CAR ID	03	**Section no.**	D.5	**Date:** 03/10/2023
Description of CAR				
The monitoring parameter for "number of project device of type i and batch j operating during year y" is mentioned twice in section B.7 of the updated PDD. PD is requested to rectify the same.				
Project participant response				**Date:** 28/11/2023
The duplication in monitoring parameter "number of project device of type i and batch j operating during year y" has now been rectified.				
Documentation provided by project participant				
VVB assessment				**Date:** 11/01/2024
PD has removed duplication of monitoring parameter 'number of project device of type i and batch j operating during year y' from section B.7 of the updated PDD. Hence, CAR is closed.				

CAR ID	04	**Section no.**	D.9	**Date:** 03/10/2023
Description of CAR				
PP is requested to explain the impact of design change in the project activity in updated PDD on the following: *a) The applicability of the applied methodologies.* *b) The project boundary and any implications on the inclusion or exclusion of emissions sources and leakage emissions.* *c) The compliance of the monitoring plan with the applied methodologies.* *d) The level of accuracy and completeness of the monitoring compared with the requirements contained in the registered monitoring plan.* *e) The additionality of the project activity.* *f) The scale of the project activity*				
Project participant response				**Date:** 28/11/2023
The stated design change related explanation is already done in the relevant section (Appendix 4: Design Changes) of the PDD submitted to the VVB for validation. Please check the same in the PDD.				
Documentation provided by project participant				
VVB assessment				**Date:** 11/01/2024

PD has provided detailed explanation related to impact of design change on above mentioned parameter in appendix 4 of the updated PDD. Hence, CAR is closed.

CAR ID	05	**Section no.**	D.3	**Date:** 12/01/2024
Description of CAR				
In section B.4 of the updated PDD, value of $\eta_{old,i,j}$ is not consistent as per applicable version of methodology. PD is requested to rectify the value throughout the updated PDD.				
Project participant response				**Date:** 16/01/2024
The section B.4 of the PDD (version 7.0) is corrected for the inconsistencies in the value of $\eta_{old,i,j}$ applied. The same has been corrected throughout the document.				
Documentation provided by project participant				
VVB assessment				**Date:** 31/01/2024
PD has rectified the value of $\eta_{old,i,j}$ in the revised PDD as per applicable version of methodology which VVB found appropriate. Hence, CAR is closed.				

CAR ID	06	**Section no.**	D.9	**Date:** 12/01/2024
Description of CAR				
In section B.5.2 & D.2 of the updated PDD, PD has mentioned installation of both metallic & mud ICS whereas in section A.1 it is mentioned about installation of metallic ICS only. PD is requested to maintain consistency for the same.				
Project participant response				**Date:** 16/01/2024
The statement of installation of mud ICS in section B.5.2 takes reference of the CP-1 and this has been referenced to justify the ongoing financial need. The section has been paraphrased for better clarity in the revised PDD (version 7.0).				
Documentation provided by project participant				
VVB assessment				**Date:** 31/01/2024
PO has made the necessary changes in section B.5.2 and D.2 of the revised PDD maintain consistency to describe distribution of new metallic ICS only. Hence, CAR is closed.				

CAR ID	07	**Section no.**	D.8	**Date:** 12/01/2024
Description of CAR				
In section B.6 of the updated PDD, SDG indicators mentioned against target of SDG 7 and SDG 13 is not consistent as per serial no. of indicators mentioned in "Global Indicators framework for the SDGs & targets of the 2030 agenda for Sustainable development".				
Project participant response				**Date:** 16/01/2024
The SDG indicators mentioned in section B.6 are made consistent with the "Global Indicators framework for the SDGs & targets of the 2030 agenda for Sustainable development".				
Documentation provided by project participant				
VVB assessment				**Date:** 31/01/2024
PD has revised the section B.6 of the PDD and maintain consistency for SDG indicators for SDG 7 and SDG 13. Hence, CAR is closed.				

CAR ID	08	**Section no.**	D.4	**Date:** 12/01/2024
Description of CAR				
The leakage assessment mentioned under section B.6.1 of the updated PDD is not as per applicable version of methodology. PD is requested to maintain consistency for the same in the updated PDD.				
Project participant response				**Date:** 16/01/2024
Section B.6.1 of the PDD (version 7.0) considering leakage assessment has been revised according to the applied version of methodology.				
Documentation provided by project participant				
VVB assessment				**Date:** 31/01/2024

PD has revised section B.6.1 of the PDD and included leakage assessment as per applicable version of methodology. Hence, CAR is closed.

CAR ID	09	**Section no.**	D.4	**Date:** 12/01/2024
Description of CAR				
The value of estimated ERs is not consistent in Table 1 and section B.6.3 of the updated PDD.				
Project participant response				**Date:** 16/01/2024
The estimated ERs in Table 1 and elsewhere are made consistent as per the ER calculation spreadsheet and the efficiency of the ICS planned to be installed.				
Documentation provided by project participant				
7544_Ex-ante_ER_Estimate_CP2-v02_16012024				
VVB assessment				**Date:** 31/01/2024
PD has rectified the estimated ERs and maintain consistency with Ex-ante estimated ER sheet which VVB found appropriate. Hence, CAR is closed.				

CAR ID	10	**Section no.**	D.11	**Date:** 12/01/2024
Description of CAR				
PD has not included details of SFR for RCP in section E of the updated PDD. PD is requested to include the details for the same.				
Project participant response				**Date:** 16/01/2024
The SFR detail is now included in the revised PDD (version 7.0). The SFR was initiated on 19/05/2023 for a period of one month which concluded on 19/06/2023 and no feedback was received as part of the SFR organized. Evidence of organization of the SFR is submitted with this response package. Please see SD#6.				
Documentation provided by project participant				
SD#6_SFR_screenshot				
VVB assessment				**Date:** 31/01/2024
PD has included SFR details, which was conducted for RCP, in section E of the revised PDD and provided appropriate evidence for the same. Hence, CAR is closed.				

Table 4. FAR from this validation/RCP

FAR ID	01	**Section no.**	D.6	**Date:** 12/01/2024
Description of FAR				
Project developer shall claim emission reductions from the effective replacement date with new metallic ICS and no emission reductions shall be claimed from the end date of technical life of old mud ICS & metallic ICS until the installation/replacement date of new metallic ICS. The verification team shall ensure the same until the entire replacement of 16,380 is not complete.				
Project participant response				**Date:** 16/01/2024
PP assures that the emission reduction shall be subject to calculation from the date of commissioning of the batch of the replaced ICS. Since the mud ICS were already out of their useful life during the fourth year of 1st CP and the 2nd CP will only involve metallic ICS as replacement, the context of mud-ICS is redundant for the 2nd CP. A procedure to replace the ICS is updated in section A.3 and B.7.1 of the revised PDD (version 7).				
Documentation provided by project participant				
VVB assessment				**Date:** 31/01/2024
PP shall claim emission reduction from the effective replacement date of new metallic ICS i.e., NEP star 5 ICS model which is going to be distributed to replace all old project device distributed in CP-1. Hence, FAR is open.				