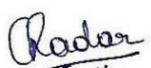


**Verification and certification report form for  
GS CDM project activities**

**(Version 04.0)**

*Complete this form in accordance with the instructions attached at the end of this form.*

**BASIC INFORMATION**

|                                                                                                                       |                                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>Title and GS reference number of the project activity</b>                                                          | Micro Scale Biogas CDM Project of CROSS (GS1199)                                                     |
| <b>Scale of the project activity</b>                                                                                  | <input type="checkbox"/> Large-scale<br><input checked="" type="checkbox"/> Small-scale              |
| <b>Version number of the verification and certification report</b>                                                    | 1.0                                                                                                  |
| <b>Completion date of the verification and certification report</b>                                                   | 04/08/2023                                                                                           |
| <b>Monitoring period number and duration of this monitoring period</b>                                                | Monitoring period no: 04<br>Duration: (01/01/2021) to (31/12/2022) (Inclusive of both days)          |
| <b>Version number of the monitoring report to which this report applies</b>                                           | 2.0                                                                                                  |
| <b>Crediting period of the project activity corresponding to this monitoring period</b>                               | 01/01/2021 to 31/12/2028 (Fixed)                                                                     |
| <b>Project participants</b>                                                                                           | CROSS<br>Foundation myclimate – The Climate Protection Partnership                                   |
| <b>Host Party</b>                                                                                                     | India                                                                                                |
| <b>Applied methodologies and standardized baselines</b>                                                               | AMS.I.E – “Switch from Non-Renewable Biomass for Thermal Applications by the User” ver 4             |
| <b>Mandatory sectoral scopes</b>                                                                                      | Sectoral Scope 1 and 13                                                                              |
| <b>Conditional sectoral scopes, if applicable</b>                                                                     | NA                                                                                                   |
| <b>Estimated amount of GHG emission reductions or GHG removals for this monitoring duration in the registered PDD</b> | 41,800 tCO <sub>2</sub> e                                                                            |
| <b>Certified amount of GHG emission reductions or GHG removals for this monitoring period</b>                         | 9,262 tCO <sub>2</sub> e                                                                             |
| <b>Name of the VVB</b>                                                                                                | 4K Earth Science Private Limited                                                                     |
| <b>Name, position and signature of the approver of the verification and certification report</b>                      | <br>Chandrakala R |

## SECTION A. Executive summary

4K Earth Science Private Limited (4KES) has been commissioned by “M/s Community Reconstruction of Social Service (CROSS)” to perform an independent verification of its registered GS CDM project “Micro Scale Biogas CDM Project of CROSS”, CDM Ref# 8784 & GS Ref# GS1199 for the reported GHG emission reductions for the given monitoring period 01/01/2021 - 31/12/2022 (both dates included). The GS CDM projects must undergo independent third-party verification and certification of emission reductions as the basis for issuance of Gold Standard verified Emission Reductions (GS VERs)

The objectives of this verification exercise are, by review of objective evidence, to establish that:

- The project activity has been implemented and operated as per the registered PDD and revised PDD and that all physical features (technology, project equipment, and monitoring and metering equipment) of the project are in place;
- Monitoring report and other supporting documents are complete;
- The actual monitoring systems & procedures and monitoring report conforms with the requirements of the approved monitoring plan and the approved monitoring methodology;
- The data is recorded and stored as per the monitoring methodology and approved monitoring plan.

### Scope:

The scope of the verification is the independent and objective review and ex post determination of the monitored reductions in GHG emission by the project activity. The verification is based on review of monitoring report, supporting information and

- (a) The registered CDM PDD & GS PDD
- (b) The approved methodology mentioned in the GS PDD
- (c) The registered monitoring plan
- (d) Relevant decisions, clarifications and guidance from the CMP and the CDM Executive Board
- (e) Applicable Gold Standard tool kit
- (f) CDM Validation and Verification Standard (VVS)
- (g) All information and references relevant to the project activity's resulting in emission reductions
- (h) Information related to monitoring of SD parameters

The project is assessed against the requirements of the Kyoto Protocol, the CDM Modalities and Procedures and related rules and guidance.

4KES has based on the recommendations in the latest version of CDM Validation and Verification Standard, employed a rule-based approach in the verification, focusing on the identification of significant reporting risks and the reliability of project monitoring.

### Description of project:

The project activity is the installation of biogas plants (digesters) of 2 m<sup>3</sup> capacity each for single households in all Mandals of Chittoor District, Andhra Pradesh, India. The biogas units is fed by cattle dung generated from the households. The biogas stoves replace the traditional fire wood stoves used for cooking and heating purposes.

In baseline situation, households use traditional fire wood stove which is inefficient. In the project situation the biogas stoves are used for cooking and hence completely avoiding the usage of traditional stoves which results in savings in non-renewable biomass. Thereby, it avoids the related CO<sub>2</sub> emission from the avoidance of non-renewable biomass in cooking. The PP planned to install 5,000 biogas units of 2 m<sup>3</sup> capacity each for single households out of which 3095 units were commissioned.

### Methodology:

4KES follows a rule-based verification approach, wherein, as a first step, the contract review is undertaken as per latest version of CDM Accreditation Standard. Subsequently, after the contract is signed, the Gold Standard Verification work plan of the project activity is made available at Gold Standard registry in accordance with Gold Standard rules.

A desk review of the project documentation is undertaken, which is followed by an onsite audit and interviews by the members of verification team in accordance with the latest version of CDM AS. The verification protocol is filled by the verification team that is based on standard auditing practices and

latest version of CDM VVS, to capture the assessment of applicable CDM & GS requirements viz., latest version of CDM Project Standard, applicable GS4GG guidelines, registered CDM PDD & GS-PDD, GS Passport applied methodology/ies and/or tools and recent decisions. The verification protocol provides transparent means to record the observations and compliances by the verification team members and the nonconformities (CARs/CLs), if any. The verification protocol is an internal document, and is available on request. After successful closure of findings (CARs/CLs), the draft verification report is prepared which went through Independent technical review as per 4KES internal procedures and the TR comments were given for any gaps in audit findings. After closure of the TR comments, final verification report is prepared then followed by final approval for the decision made. The approved verification report is given to PP which shall be submitted for request for issuance.

Following are the major milestones for the verification under consideration.

|                           |                         |
|---------------------------|-------------------------|
| Verification contract     | 25/08/2022              |
| Onsite Audit              | 13/06/2023 – 14/06/2023 |
| Draft Verification Report | 20/07/2023              |
| Final Verification Report | 04/08/2023              |

## SECTION B. Verification team, technical reviewer and approver

### B.1. Verification team member

| No. | Role                             | Type of resource | Last name      | First name | Affiliation<br>(e.g. name of central or other office of DOE or outsourced entity) | Involvement in       |                    |            |                       |
|-----|----------------------------------|------------------|----------------|------------|-----------------------------------------------------------------------------------|----------------------|--------------------|------------|-----------------------|
|     |                                  |                  |                |            |                                                                                   | Desk/document review | On-site inspection | Interviews | Verification findings |
| 1.  | Team Leader and Technical Expert | IR               | Puratchikkanal | Ma Paa     | Central Office                                                                    | x                    | x                  | x          | x                     |
| 2   | Team Leader (obs)                | IR               | S Acharya      | Swati      | Central Office                                                                    | x                    | x                  | x          | x                     |
| 2   | Team Member                      | IR               | Babu S         | Praveen    | Central Office                                                                    | x                    | x                  | x          | x                     |

### B.2. Technical reviewer and approver of the verification and certification report

| No. | Role               | Type of resource | Last name | First name      | Affiliation (e.g. name of central or other office of DOE or outsourced entity) |
|-----|--------------------|------------------|-----------|-----------------|--------------------------------------------------------------------------------|
| 1.  | Technical reviewer | IR               | Sharma    | Chethan Swaroop | Central Office                                                                 |
| 2.  | Approver           | IR               | R         | Chandrakala     | Central Office                                                                 |

## SECTION C. Application of materiality

### C.1. Consideration of materiality in planning the verification

| No. | Risk that could lead to material errors, omissions or misstatements | Assessment of the risk |               | Response to the risk in the verification plan and/or sampling plan |
|-----|---------------------------------------------------------------------|------------------------|---------------|--------------------------------------------------------------------|
|     |                                                                     | Risk level             | Justification |                                                                    |

|    |                                                                |      |                                                                                                            |                                                                                          |
|----|----------------------------------------------------------------|------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 1. | Wrong data collection/misinterpretation of household situation | Low  | It's not complicated monitoring process. Appropriate trainings are conducted for the monitoring personnel. | By means of site visit check of actual situation to sample number of households.         |
| 2  | Transfer of data from sampling survey sheet to ER sheet        | Low  | Possible human error during transfer of data to ER sheet                                                   | Thorough cross-check required on the transfer of data from survey sheets to the ER sheet |
| 3  | Error in ER calculations                                       | High | The sample size was large, hence increasing the chances of error in ER calculation                         | The ER calculations were checked for accuracy.                                           |

## C.2. Consideration of materiality in conducting the verification

The prescribed thresholds for materiality, as per §326 of CDM VVS for PA,

|                               |          |                 |         |         |         |
|-------------------------------|----------|-----------------|---------|---------|---------|
| Prescribed range of ERs/annum | >500,000 | 300,000-500,000 | 300,000 | SSC PAs | MSC PAs |
| Prescribed Threshold          | 0.5%     | 1.0%            | 2.0%    | 5.0%    | 10.0%   |

The identified/selected materiality threshold for the project activity under current monitoring period is 5% as project activity is small scale project activity.

|                           | MR Version (Draft)       | MR Version (Final)       |
|---------------------------|--------------------------|--------------------------|
| Emission reductions/annum | 9,262 tCO <sub>2</sub> e | 9,262 tCO <sub>2</sub> e |
| Identified Threshold      | 5.0%                     | 5.0%                     |

The impact of errors observed during verification for each monitoring parameter on the emission reduction calculation is provided below:

| Parameter                                                           | Verification approach | Error identified    | Corrected | Extrapolated error for population size (Qty and %) | Within Threshold |
|---------------------------------------------------------------------|-----------------------|---------------------|-----------|----------------------------------------------------|------------------|
| <b>Biogas Units Constructed</b>                                     | Complete data check   | No error identified | NA        | No Impact                                          | Yes              |
| <b>Number of biogas plants operating</b>                            | Complete data check   | No error identified | NA        | No Impact                                          | Yes              |
| <b>Confirmation that non-renewable biomass has been substituted</b> | Acceptance sampling   | No error identified | NA        | No Impact                                          | Yes              |
| <b>Non-usage of biogas plants</b>                                   | Complete data check   | No error identified | NA        | No Impact                                          | Yes              |

No error on the values of the monitoring parameters is found. The change in the emission reduction between draft and final MR is due to the correction in the ER calculation. Please refer the CARs & CLs raised in the Appendix 4.

## SECTION D. Means of verification

### D.1. Desk/document review

The verification is performed primarily as a desk review of the documents submitted at various stages of assessments. The review is performed by assessment team using verification protocols (checklists). The assessment team cross-checked the information provided in the MR and information from sources other than those used, if available, and also conducts independent background investigations. 4KES conducted a desk review, involving but not limited to,

- A review of the data and information presented to verify their completeness;
- A review of the monitoring plan and monitoring methodology, paying particular attention to the frequency of measurements, the quality of metering equipment including calibration requirements, and the quality assurance and quality control procedures;
- A review of calculations and assumptions made in determining the GHG data and emission reductions;
- An evaluation of data management and the quality assurance and quality control system in the context of their influence on the generation and reporting of emission reductions.

The list of documents reviewed is included in the section 'Appendix 3' of this report.

### D.2. On-site inspection

| Duration of on-site inspection: 13/06/2023-14/06/2023 |                                                                                                            |               |                           |                                                               |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------|---------------------------|---------------------------------------------------------------|
| No.                                                   | Activity performed on-site                                                                                 | Site location | Date                      | Team member                                                   |
| 1.                                                    | Opening Meeting, Office Inspection, Verification of monitoring records, interviews and database inspection | CROSS Office  | 13/06/2023                | Swati S Acharya<br>Praveen Babu S<br>Ma Paa<br>Puratchikkanal |
| 2                                                     | Visit to sampled of households                                                                             | Villages      | 13/06/2023-<br>14/06/2023 | Swati S Acharya<br>Praveen Babu S<br>Ma Paa<br>Puratchikkanal |
| 3                                                     | Closing meeting                                                                                            | CROSS Office  | 14/06/2023                | Swati S Acharya<br>Praveen Babu S<br>Ma Paa<br>Puratchikkanal |

### D.3. Interviews

| No. | Interviewee |            |             | Date                            | Subject                                                                   | Team member                             |
|-----|-------------|------------|-------------|---------------------------------|---------------------------------------------------------------------------|-----------------------------------------|
|     | Last name   | First name | Affiliation |                                 |                                                                           |                                         |
| 1.  | P           | Bhupahi    | CROSS       | 13/06/2023<br>and<br>14/06/2023 | - General aspects of the project<br>- Changes since validation / previous | Swati S<br>Acharya<br>Praveen Babu<br>S |
| 2   | -           | Jayasudha  | CROSS       |                                 |                                                                           |                                         |
| 3   | P           | Gana pathi | CROSS       |                                 |                                                                           |                                         |

| 4                       | K         | Ganapathi      | CROSS     |            | <ul style="list-style-type: none"> <li>verification</li> <li>- Remaining issues from validation/ previous verification</li> <li>- Quality management system</li> <li>- Involved personnel and responsibilities</li> <li>- Training and practice of the operational personnel</li> <li>- Implementation of the monitoring plan</li> <li>- Monitoring data management</li> <li>- Involved personnel and responsibilities</li> <li>- Training and practice of the operational personnel</li> <li>- Implementation of the monitoring plan</li> <li>- Monitoring data management</li> <li>- Data uncertainty and residual risks</li> <li>- Procedural aspects of the Monitoring Maintenance</li> </ul> | Ma Paa Puratchik kanal                                     |
|-------------------------|-----------|----------------|-----------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| 6.                      | Padmanaba | Sudha          | FCN       |            | <ul style="list-style-type: none"> <li>- Data Analysis</li> <li>- Issues in the MR</li> <li>- ER calculation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Swati S Acharya<br>Praveen Babu S<br>Ma Paa Puratchikkanal |
| <b>Beneficiary Name</b> |           |                |           |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| No                      | Last Name | First Name     | Unit No.  | Date       | Subject                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Team Member                                                |
| 1                       |           | Anjali         | 2630      | 13/06/2023 | <ul style="list-style-type: none"> <li>- Awareness about ownership of VERs</li> <li>- Working condition of bio-digester unit</li> <li>- SD parameters verification</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Swati S Acharya<br>Praveen Babu S<br>Ma Paa Puratchikkanal |
| 2.                      |           | Llaitha        | 2670      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 3.                      |           | Lakshmi        | 1315      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 4.                      |           | Devaki         | 1342      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 5.                      |           | Latha          | 5676      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 6.                      |           | Soudha ravi    | 3998      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 7.                      |           | Krishna        | 2068<br>2 | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 8.                      |           | Vijaya         | 2001      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 9.                      |           | Chinnama       | 4058      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 10.                     |           | Chithamma      | 2658      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 11                      |           | Jagadheshwari  | 001       | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 12.                     |           | Chamundeshwari | 6024      | 13/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 13.                     |           | Shyamala       | 6023      | 14/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 14                      |           | Nirmala        | 5674      | 14/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 15.                     |           | Usha rani      | 5787      | 14/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
| 16.                     |           | Revathi        | 5790      | 14/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |
|                         |           | Renuka         | 6396      | 14/06/2023 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                            |

|  |  |              |      |            |  |  |
|--|--|--------------|------|------------|--|--|
|  |  | Vinayakamma  | 3851 | 14/06/2023 |  |  |
|  |  | Krishnamma   | 4245 | 14/06/2023 |  |  |
|  |  | Lakshmi      | 3626 | 14/06/2023 |  |  |
|  |  | Annaluyamma  | 4319 | 14/06/2023 |  |  |
|  |  | Mary minnala | 6397 | 14/06/2023 |  |  |
|  |  | Sharmila     | 6277 | 14/06/2023 |  |  |

During the site visit, the verification team interviewed the biogas users randomly. Apart from acceptance sample survey explained below section, the other questions asked by the verification team and the summary of reply received from the stakeholders are given below:

| Questions asked by verification team                                                                | Summary of Response by Stakeholders/end users                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Is the biogas system in operating conduction?                                                       | All end users confirmed the biogas system in operating condition now.                                                                                                                                                                                        |
| How many cattle you have?                                                                           | Verification team received varied responses from each household based on the actual data                                                                                                                                                                     |
| Are you aware that the project claims emission reduction and the ownership of the ERs are with BCS? | All the end users aware that the all the rights of emission reduction are with BCS as the bio digester was constructed by BCS at free of cost. They also confirmed about the agreement signed with BCS for giving away the emission reduction rights to BCS. |
| What are all the data collected by Village Volunteers?                                              | All households confirmed the following data are collected by village volunteers regularly: <ul style="list-style-type: none"> <li>Operational status of biogas unit.</li> <li>Any repairs</li> <li>Non-operating days</li> </ul>                             |
| Is there any repairs done to your digester or stove?                                                | Few households confirmed that some minor repairs are done during monitoring period.                                                                                                                                                                          |
| If you have any issue with the device/project, you contact whom?                                    | All households confirmed that they have the contact details of the village volunteer and for any requirement they can contact village volunteer.                                                                                                             |
| Is indoor smoke reduced due to the use of biogas unit?                                              | All the households confirmed reduction in the indoor smoke and thereby reduction in health issues ie, eye related issues, respiratory issues.                                                                                                                |
| Is fuel wood collection time reduced                                                                | All the households confirmed considerable reduction in fuel wood collection time                                                                                                                                                                             |
| Is cooking time reduced due to use of biogas unit?                                                  | All the households confirmed reduction in cooking time.                                                                                                                                                                                                      |
| How the time saving is useful?                                                                      | All household confirmed they get adequate rest and most of the households confirmed they spend the additional time in revenue generating activities such as going for daily wages, agricultural activities etc.                                              |
| What are the other benefits of biogas unit?                                                         | The summary of the other benefits mentioned by households are: <ul style="list-style-type: none"> <li>Easy cooking</li> <li>Reduction in fuelwood collection</li> <li>Clean home</li> </ul>                                                                  |

#### D.4. Sampling approach

During the onsite audit, a sampling approach has been used by the verification team to verify the reported values for the monitored parameters as listed in section D.3 of the MR which are determined through sample survey by PP.

For the determination of DOE's acceptance sample size, verification team assumed the following factors:  
Producer risk -5% (ie, There is 5% chance that the DOE will wrongly reject the project participants' records of acceptable quality)

Consumer risk -5% (ie, There is 5% chance that the DOE will wrongly accept the project participants" records of records of unacceptable quality)

Acceptable quality level (AQL) or the Level of Assurance- 1% (i.e., the proportion of discrepancies between the project participants" sample records and the DOE sample that are acceptable up to 0.5% limit)

Unacceptable Quality Level (UQL) – 20% (ie, the proportion of discrepancies between the project participants" sample records and DOE sample records that are unacceptable above 20% limit)

Verification team has determined acceptance sample size for all the sample survey parameters based on the standard "Sampling and surveys for CDM project activities and programmes of activities" version 8. From the above assumed factors, the verification team determined the minimum sample size (n) as 22 and acceptance number (c) as 1. The same is intimated to PP prior to onsite audit. The actual number of sample size where the acceptance survey was done given below:

| Parameters                                                      | Total Population | PP's sample size | Acceptance sample size | Acceptance Number | Sampling method used |
|-----------------------------------------------------------------|------------------|------------------|------------------------|-------------------|----------------------|
| Confirmation that non-renewable biomass of has been substituted | 3095             | 50               | 22                     | 1                 | simple random sample |

During site visit, verification team visited the selected sample households and interviewed the biogas plant user to check the data reported by PP. The result of the survey is given below:

| Parameters                                                       | DOE size | Sample | No of PP's record beyond unacceptable level | Accepted/ Rejected |
|------------------------------------------------------------------|----------|--------|---------------------------------------------|--------------------|
| Confirmation that non- renewable biomass of has been substituted | 22       |        | 0                                           | Accepted           |

Verification team finds no error in the PP's survey records. Hence verification team accepts all the data determined through sample survey by PP. However, it shall be noted that the parameter is not used for emission reduction calculation but used to just confirm that the non-renewable biomass has been substituted due to the use of project devices.

#### **D.5. Clarification requests (CLs), corrective action requests (CARs) and forward action requests (FARs) raised**

| Areas of verification findings                                                                                            | No. of CL | No. of CAR | No. of FAR |
|---------------------------------------------------------------------------------------------------------------------------|-----------|------------|------------|
| Compliance of the monitoring report with the monitoring report form                                                       | -         |            | -          |
| Compliance of the project implementation and operation with the registered PDD                                            | -         | -          | -          |
| Post-registration changes                                                                                                 | -         | -          | -          |
| Compliance of the registered monitoring plan with the methodologies including applicable tools and standardized baselines | 1         | -          | -          |
| Compliance of monitoring activities with the registered monitoring plan                                                   |           | 2          | -          |
| Compliance with the calibration frequency requirements for measuring instruments                                          | -         | -          | -          |
| Assessment of data and calculation of emission reductions or net removals                                                 | 1         | 1          |            |
| Assessment of reported sustainable development co-benefits                                                                |           | 1          | -          |
| Stakeholder Inputs & Legal Dispute                                                                                        | -         | -          | -          |
| Others (please specify)                                                                                                   | -         |            | -          |
| <b>Total</b>                                                                                                              | <b>2</b>  | <b>4</b>   |            |

## SECTION E. Verification findings

### E.1. Compliance of the monitoring report with the monitoring report form

|                              |                                                                                                                                                                                                        |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | The project is registered under GS4GG, and PP used GS monitoring report template, version 1.1. All the sections of the form were filled as per the GS4GG guidelines and gave all the relevant details. |
| <b>Findings</b>              | No findings                                                                                                                                                                                            |
| <b>Conclusion</b>            | Monitoring report was found to be completed and using the valid version i.e. version 1.1 of the GS MR, hence the monitoring report is complying with the monitoring report form.                       |

### E.2. Remaining forward action requests from validation and/or previous verifications

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>This is 4<sup>th</sup> verification of the project activity. Verification team checked the following reports for any pending issues from previous verification or GS4GG transition:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> CDM Verification report of 3<sup>rd</sup> Monitoring period</li><li><input type="checkbox"/> GS Verification report of 3<sup>rd</sup> Monitoring period</li><li><input type="checkbox"/> GS performance review report of 3<sup>rd</sup> Monitoring period</li><li><input type="checkbox"/> GS4GG Transition review report</li></ul> |
| <b>Findings</b>              | No finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Conclusion</b>            | From the verification of the above-mentioned documents, it is found there is no forward action request (FAR) raised from 3 <sup>rd</sup> verification or GS4GG transition.                                                                                                                                                                                                                                                                                                                                                                                                                    |

### E.3. Compliance of the project implementation and operation with the registered project design document

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>The verification team determined the conformity of the actual project activity and its operation with the validated project design document. Verification team has, by means of a desk review and an on-site visit, assessed that all physical features of the proposed CDM project activity proposed in the registered PDD/3/ are in place, and that the project participants have operated the CDM project activity as per the registered PDD/3/.</p> <p>The verification team has checked the information in the monitoring report and compared against the revised PDD.</p> <p>During the onsite inspection, the verification team has checked the project locations, implementation, technology applied, project equipment, and monitoring system against the information in the revised PDD. Interviews with operational personnel and households and random samplings have been carried out.</p> |
| <b>Findings</b>              | No findings were raised.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Conclusion</b>            | The verification team has reviewed the biogas units commissioning records, application forms, end user agreements/14/ and non-working & repair log records/18/. The verification team has observed at the site that all physical locations of the biogas units on sample basis and found that the details are correctly matching with the monitoring report and monitoring records maintained by PP. The type of the biogas provided and the locations are consistent with the revised PDD. Thus, the verification team has concluded that the project activity was implemented and operated as per revised PDD. The verification team, based on the site visit and document review, was able to conclude that the project activity has been commissioned and implemented as per the revised PDD and that all physical features of the project are in place.                                               |

### E.4. Post-registration changes

#### **E.4.1. Temporary deviations from the registered monitoring plan, applied methodologies, standardized baselines or other methodological regulatory documents<sup>1</sup>**

No temporary deviation from the registered monitoring plan is sought in this verification.

#### **E.4.2. Corrections**

No correction is sought in this verification.

#### **E.4.3. Changes to the start date of the crediting period**

There are no changes to the start date of the crediting period in this monitoring.

#### **E.4.4. Inclusion of a monitoring plan**

Monitoring plan was already included in the approved PDD. Hence, not applicable.

#### **E.4.5. Permanent changes from registered monitoring plan, or permanent deviation of monitoring from the applied methodologies, standardized baselines or other methodological regulatory documents**

No permanent changes or deviation in the registered monitoring plan is sought

#### **E.4.6. Changes to the project design**

No change in project design is sought.

#### **E.4.7. Changes specific to afforestation and reforestation project activities**

Not applicable

#### **E.5. Compliance of the registered monitoring plan with applied methodologies, applied standardized baselines, and other applied methodological regulatory documents**

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | The verification team checked compliance of project monitoring plan with the applied methodology (AMS I.E, version 4) and including applicable tools.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Findings</b>              | No findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Conclusion</b>            | <p>All parameters stated in the monitoring plan and the applied methodology has been fulfilled in the current monitoring report. All baseline emission parameters have been verified and found satisfactory. The discussion regarding each parameter has been elaborated in the further sections of this report. The monitoring plan as mentioned in the registered PDD is in accordance with the applied methodology.</p> <p>In the opinion of the verification team the monitoring report complies with the requirement of the registered PDD/3/ and applied methodologies (AMS I.E)/6/ in the context of the project activity. Thus, it conforms to the requirement VVS for PA version 3 /12/.</p> |

#### **E.6. Compliance of monitoring activities with the registered monitoring plan**

##### **E.6.1. Data and parameters fixed ex ante or at renewal of crediting period**

|                              |                                                                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | The verification team has checked the ex-ante parameters and data stated in Section D.1 of MR and compared with section B.6.2 of the registered PDD whether all parameters fixed ex-ante for the crediting period have been applied correctly. |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

<sup>1</sup> 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).

|                   | Ex-ante Parameter                                                                                                                                                                                                                                                                                                                                                     | Value                                     | Consistent with the PDD/3/ & the source mentioned in it |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------|
|                   | Rating Biogas                                                                                                                                                                                                                                                                                                                                                         | 1.69                                      | Yes                                                     |
|                   | $B_y$                                                                                                                                                                                                                                                                                                                                                                 | 3.71 tonnes/year/family                   | Yes                                                     |
|                   | $f_{NRB, y}$                                                                                                                                                                                                                                                                                                                                                          | 0.8695                                    | Yes                                                     |
|                   | $NCV_{biomass}$                                                                                                                                                                                                                                                                                                                                                       | 0.015 TJ/tonne                            | Yes                                                     |
|                   | $EF_{projected\_fossilfuel}$                                                                                                                                                                                                                                                                                                                                          | 64.481.6 tCO <sub>2</sub> /TJ             | Yes                                                     |
|                   | <b>Diversion of non-renewable biomass saved under the project activity by non-project households</b>                                                                                                                                                                                                                                                                  | $3.71 \times 0.8695 = 3.19t/Household/yr$ | Yes                                                     |
| <b>Findings</b>   | No finding                                                                                                                                                                                                                                                                                                                                                            |                                           |                                                         |
| <b>Conclusion</b> | The values of ex ante fixed parameters have been verified from the revised PDD/3/. Same has been crosschecked with the source mentioned in the PDD and found to be consistent. The verification team confirms that the values used/applied are correct and justified. Also, the ex-ante values have been correctly applied in the calculation of emission reductions. |                                           |                                                         |

## E.6.2. Data and parameters monitored

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>The verification team has determined whether the registered monitoring plan has been properly implemented and followed by the PP that the monitoring has been carried out in accordance with the registered monitoring plan; and determined whether all parameters including project emission parameters, baseline emission parameters and leakage parameters used for emission reduction calculation stated in the registered monitoring plan are monitored or used appropriately as per the registered PDD.</p> <p>During the verification all monitoring parameters listed in Section D.2 of MR were compared with section B.7.1 of the registered PDD have been verified with regard to the:</p> <ul style="list-style-type: none"> <li>(i) appropriateness of the applied measurement / determination method,</li> <li>(ii) the correctness of the values applied for ER calculation,</li> <li>(iii) the accuracy, and applied QA/QC measures.</li> </ul> <p>The monitored values are assessed as follows:</p> <p><b>Date of commissioning of biogas units</b> : This parameter is monitored as and when a digester is commissioned/started producing gas and the same is entered into the monitoring database. The reported data is cross checked with the online monitoring solution/14/ maintained by CROSS during the onsite visit. The value reported in the monitoring report (ie, 3095) is found to be correct.</p> <p><b>Number of biogas plants operating</b> (Number of plants operating in year (t)): PP will repair the plants as and when an issue is found by staff or reported by end user. So, PP continuously monitors the non-working days when the unit is not operational. The emission reduction will be adjusted based on the non-operational days. Hence, the number of biogas plants operating is monitored as 66.24% of 3095 units. The values (2050 units) were cross-verified with Log book records, digitized monitoring database during onsite audit by the verification team. List of non-operational units are also verified and confirmed that there are 1045 units were not in operational at the end monitoring period. Hence, the value reported for this parameter is correct</p> <p><b>N<sub>HH</sub></b> (Number of households in the project activity in year): The construction processes are monitored on a day to day basis and database maintained from its initiation to completion dates for each of the biogas unit. When the biogas unit is not working, the beneficiaries report to the village level volunteer, who in turn reports to the biogas field worker of the project for the repair of the unit. The date when the</p> |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <p>plant stopped working and the date when the issue is fixed are noted down in the village level breakdown log book/18/ by the staffs/volunteers and the same are entered into monitoring solutions/14/ onsite. Verification team checked all the breakdown log records/18/ and data in the monitoring solution/14/. The entire breakdown data reported in the ER sheet/2/ was checked and found to be ok. Verification team confirms the data reported in the MR (ie, 757,932) non-usage days is found to be correct.</p> <p><b>Confirmation that non-renewable biomass of B<sub>y</sub> has been substituted</b><br/> <i>(Confirmation that non-renewable biomass has been substituted)</i>: This parameter was monitored through simple random sample survey. PP has conducted survey in 50 households respectively which are selected randomly/15/. As verified from the survey result/15/, all the sample households confirm that the bio digester usage substitute non-renewable biomass used in the baseline situation. All the survey sheets/15/ are verified and found that the data mentioned in the excel sheet is correct. During the onsite audit, the verification team also checked with PP regarding how the daily monitoring taken place. PP confirmed that the operational status of the biogas system was monitored. During the onsite audit verification team has done acceptance sampling survey where verification team conducted survey with 23 households (randomly selected from PP's sample population). All the data collected are consistent with PP's record/15/. No error found. Hence, the verification team confirms that the non- renewable biomass of B<sub>y</sub> has been substituted by the project activity. It shall also be noted that the parameter is not used for emission reduction as the non-usage of biogas stoves are monitored 100% as mentioned in the above parameter and deducted from emission reduction.</p> <p><b>BC<sub>PJ,HH,y</sub></b> (Average annual consumption of woody biomass per household in the pre-project devices during the project activity)<br/> The days not used from the daily monitoring report for each of the unit done at the village level and data maintained on the digitized monitoring database 14/ and when biogas units are not functional, the beneficiaries report to the village level women volunteer, who in turn reports to the Case Worker of the project for the repair of the unit. A log book is maintained for the reason of non-function and days under repair. The data is entered into the monitoring solution for each of the unit. The appropriate fuelwood use for non-operational days of biogas units is accounted. The two-pronged approach to determine the data/parameter results in emission reduction calculations that are based on real time data and have less uncertainty. During the onsite audit verification team has done acceptance sampling survey where verification team conducted the survey with 22 households (randomly selected from PP's sample population). All the data collected are consistent with PP's record/15/. No error found. It shall also be noted that the parameter is not used for emission reduction.</p> |
| <b>Findings</b>   | CAR-02 & CAR03 are raised and closed satisfactorily                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Conclusion</b> | <p>Corresponding to the VVS V03/12/, the team confirm that the monitoring has been carried out in accordance with the registered PDD/3/.</p> <p>The monitoring system is in compliance with the information flow for the parameters as mentioned in monitoring plan in registered PDD/3/. All the parameters are monitored as per the frequency mentioned in the registered PDD. The monitored data for the parameters has been verified by checking the procedure for information flow and found to be complete and consistent.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

### E.6.2.1. Implementation of sampling plan

#### Means of verification

The verification team checked whether the PP has applied a sampling approach to determine the monitored values. The two parameter that is determined though sampling are:

- Confirmation that non-renewable biomass has been substituted
- Average annual hours of operation of a system

It is observed that these parameters are not used for emission reduction calculation and just used for qualitative purposes.

The verification team checked the sampling approach followed for each monitoring parameters to confirm the sampling plan mentioned in the registered PDD.

Confirmation that non-renewable biomass has been substituted

Since the parameter 'Confirmation that non-renewable biomass has been substituted' is the proportion parameter PP has estimated the sample size based on 90/10 confidence / precision level is calculated as per the below formula:  $n =$

$$n = \frac{1.96^2 NV}{(N-1) \times 0.1^2 + 1.96^2 V}$$

Where,

|      |                                        |
|------|----------------------------------------|
| $n$  | Sample size                            |
| $N$  | Total number of households (5,000)     |
| $p$  | the proportion (0.99)                  |
| 1.96 | Represents the 90% confidence required |
| 0.1  | Represents the 10% relative precision  |

Since the survey is conducted in the households where biogas units are in operational, the expected proportion of the parameter for "Confirmation that non-renewable biomass has been substituted" for each the stratum is 1. Hence, the sample size required is estimated to be 0.

Hence, PP has calculated the sample size based on the proportion of bio digesters in operation:

| Year    | Sample size (based on expected proportion of HH NRB substituted) | Actual sample size considered for survey/1/ | Is sample size adequate? |
|---------|------------------------------------------------------------------|---------------------------------------------|--------------------------|
| 2021-22 | 0                                                                | 50                                          | Yes                      |

#### Average annual hours of operation of a system:

Since the parameter 'Average annual hours of operation of a system' is the mean parameter, PP has estimated the sample size based on 90/10 confidence / precision level is calculated as per the below formula:

$$n = \frac{1.96^2 NV}{(N-1) \times 0.1^2 + 1.96^2 V}$$

$$V = \left( \frac{SD}{mean} \right)^2$$

As per the mean and standard deviation derived from the previous monitoring period survey result, the sample size is estimated.

| year      | Estimated sample @80% rate survey/1/ | Actual sample size considered | Is sample size adequate? |
|-----------|--------------------------------------|-------------------------------|--------------------------|
| 2021-2022 | 42                                   | 50                            | yes                      |

For both the parameter, the sample size calculated based on 90/10 confidence /

|             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                        |                                                                                                                                                                                  |                                                        |                                        |           |    |       |     |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------|-----------|----|-------|-----|
|             | <p>precision level. The sample size calculation provided in the ER calculation sheet/2/ is verified and found to be correct. The chosen minimum sample size seems to be acceptable and conservative. Moreover PP has considered more sample than required.</p> <p>Verification team checked the PP's survey results. The achieved precision is mention below:</p> <table><tr><td>Survey year</td><td>Confirmation<br/>Average annual<br/>Is achieved that<br/>non- hours of<br/>precision is &lt;/=<br/>renewable<br/>operation of a<br/>10% biomass of<br/>By system has<br/>been<br/>substituted</td><td>Average annual<br/>hours of<br/>operation of a<br/>system</td><td>Is achieved<br/>precision is<br/>&lt;/= 10%</td></tr><tr><td>2021-2022</td><td>0%</td><td>3.38%</td><td>Yes</td></tr></table> <p>Since all the sampled households confirms substitution of non-renewable biomass in all the surveys, the achieved precision level is 0% which is within the required precision level of 10%. For the parameter 'Average annual hours of operation of a system' also the achieved precision levels are within 10%. Hence, the verification team confirms that the sample sizes considered by PP are adequate.</p> <p>Verification team has conducted acceptance sampling to verify the parameter monitored through sampling. The verification team calculated the minimum sample size (n) as 22 and acceptance number (c) as 1. Verification team has conducted telephonic survey in randomly in 22 numbers of households (selected from the PP's sample population) and verified the PP's survey data. No error is found in PP's sample data. All the data are found to be within acceptable quality level. Hence, the data collected by PP though sample survey is acceptable.</p> | Survey year                                            | Confirmation<br>Average annual<br>Is achieved that<br>non- hours of<br>precision is </=<br>renewable<br>operation of a<br>10% biomass of<br>By system has<br>been<br>substituted | Average annual<br>hours of<br>operation of a<br>system | Is achieved<br>precision is<br></= 10% | 2021-2022 | 0% | 3.38% | Yes |
| Survey year | Confirmation<br>Average annual<br>Is achieved that<br>non- hours of<br>precision is </=<br>renewable<br>operation of a<br>10% biomass of<br>By system has<br>been<br>substituted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Average annual<br>hours of<br>operation of a<br>system | Is achieved<br>precision is<br></= 10%                                                                                                                                           |                                                        |                                        |           |    |       |     |
| 2021-2022   | 0%                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3.38%                                                  | Yes                                                                                                                                                                              |                                                        |                                        |           |    |       |     |
| Findings    | No findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                        |                                                                                                                                                                                  |                                                        |                                        |           |    |       |     |
| Conclusion  | <p>Verification team concludes the following:</p> <ul style="list-style-type: none"><li>• The sample size considered for the parameter (which is monitored through sampling basis) is found to be appropriate</li><li>• PP's sample population was selected in all the mandals proportionally based on the number units installed in the respective mandals</li><li>• The sampling plan is implemented seems to be appropriate.</li><li>• Through acceptance sampling, the verification team confirmed that all the data collected by PP through sample survey are correct.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                        |                                                                                                                                                                                  |                                                        |                                        |           |    |       |     |

#### E.7. Compliance with the calibration frequency requirements for measuring instruments

|                              |                                                        |
|------------------------------|--------------------------------------------------------|
| <b>Means of verification</b> | Not applicable as no monitoring equipment is involved. |
| <b>Findings</b>              | NA                                                     |
| <b>Conclusion</b>            | NA                                                     |

#### E.8. Assessment of data and calculation of emission reductions or net removals

##### E.8.1. Calculation of baseline GHG emissions or baseline net GHG removals by sinks

|                              |                                                                                                                                                                                                                            |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>As per the methodology the emission reduction is directly calculated. Baseline &amp; Project emissions are not calculated separately.</p> <p>The verification team has checked whether calculations of GHG emission</p> |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | <p>reduction calculation have been carried out in accordance with the formulae and methods described in the registered monitoring plan.</p> <p>In detail the following has been verified:</p> <p><u>Transparency:</u> It has been checked whether the calculation of baseline emissions is fully traceable and, where used, the Excel calculation provides all calculation formulae.</p> <p><u>Parameter consistency:</u> It has been checked whether all internal and external parameters and data used for the calculation are applied consistently in the monitoring report and the calculation spreadsheet.</p> <p><u>Correctness:</u> It has been checked whether the applied formulae and methods for calculating baseline emissions are in accordance with the monitoring plan and the approved methodology.</p> <p><u>Completeness:</u> It has been checked whether all calculations are complete and without omissions</p> <p>The equations applied for the determination of GHG emissions reduction is consistent with the registered PDD and applied methodology:</p> <p>The emission reduction is calculated using the formula:</p> $ER_y = B_y * f_{NRB,y} * NCV_{biomass} * EF_{projected\_fossilfuel}$ <p>Emission reduction is adjusted with 0.95 factor for leakage (considering 5% leakage) as per the latest version of methodology AMS I.E, version 4)</p> <p>PP has submitted the emission reduction calculation in the excel sheet/2/. The calculation in the excel sheet is checked whether the calculation is in accordance with the formula given in the PDD/3/ and the selected methodology/6/.</p> |
| <b>Findings</b>   | No findings raised.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Conclusion</b> | <p>The verification team confirms the following:</p> <ul style="list-style-type: none"> <li>• The calculations of baseline GHG emissions have been carried out in accordance with the equations and methods described in the registered monitoring plan and applied methodology.</li> <li>• The emission factor applied is an ex-ante value valid for the fixed crediting period.</li> <li>• Any assumptions used in emission or removal calculations have been justified.</li> <li>• Appropriate emission factor and other reference values have been correctly applied. It can be confirmed that the emission reduction calculation is correct.</li> <li>• The ER calculation sheet/2/ provided is clear, transparent and the calculations provided in the sheet are reproducible.</li> </ul> <p>Hence, the emission reduction reported in the monitoring report/1/ for the monitoring period (ie, 9,749 tCO<sub>2</sub>e without leakage adjustment and 9,262 tCO<sub>2</sub>e with leakage adjustment) is verified to be correct</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

#### E.8.2. Calculation of project GHG emissions or actual net anthropogenic GHG removals by sinks

|                              |                                                                                                                                                               |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | Not applicable as the emission reduction is directly calculated. No project emission is calculated. This is as per the registered PDD & selected methodology. |
| <b>Findings</b>              | NA                                                                                                                                                            |
| <b>Conclusion</b>            | NA                                                                                                                                                            |

#### E.8.3. Calculation of leakage GHG emissions

|                              |                                                                                                                                                                                                                                                                                                           |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | PP has considered 5% leakage as per the latest version of the methodology (AMS I.E). As per the latest version, if PP apply 5% leakage (i.e., using the adjustment factor of 0.95) then monitoring of the same is not necessary. Hence, verification team accepts the usage of adjustment factor of 0.95. |
| <b>Findings</b>              | No finding                                                                                                                                                                                                                                                                                                |
| <b>Conclusion</b>            | The PP has applied 0.95 leakage adjustment factor in emission reduction which is acceptable considering the provision in the latest version of the methodology (AMS I.E). Verification team has accepted the same. The leakage estimated in the MR (ie.,487 tCO <sub>2</sub> e) is found to be correct.   |

#### E.8.4. Summary calculation of GHG emission reductions or net anthropogenic GHG removals by sinks

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | MR demonstrates the summary of GHG emission reductions for the monitoring period and calculated according to the applied methodologies as follows:<br>$ER_y = BE_y - PE_y - L_y$<br>$= 9,749 - 0 - 487 = 9,262 \text{ tCO}_2\text{e}$<br>The ER calculation sheet and monitoring report is verified to check the calculation.                                                                                                                                                                                     |
| <b>Findings</b>              | CL01 & CAR-01 is raised and closed successfully.                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Conclusion</b>            | The verification team confirms the following: <ul style="list-style-type: none"> <li>The emission reduction value reported (i.e., 9,262 tCO<sub>2</sub>e) is verified to be correct.</li> <li>The summary table in the MR has been filled correctly and the values are in line with the related emissions reduction spreadsheet.</li> <li>Since the monitoring period starts after 31/12/2020, the complete verified emission reductions are correctly reported under the respective column in the MR.</li> </ul> |

#### E.8.5. Comparison of actual GHG emission reductions or net anthropogenic GHG removals by sinks with estimates in registered PDD

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| <b>Means of verification</b> | The verification team has checked whether the MR includes a comparison of actual values of the monitoring period with the estimations in the registered PDD/3/. Section E.4 of the MR includes a comparison of the calculated actual emission reductions with the ex-ante calculated values in the registered PDD                                                                                                                   |                                                                |
|                              | Emission reduction estimated as per the approved PDD/3/                                                                                                                                                                                                                                                                                                                                                                             | Actual emission reduction achieved as per Monitoring report/1/ |
|                              | 41,800 t CO <sub>2</sub> e                                                                                                                                                                                                                                                                                                                                                                                                          | 9,262 t CO <sub>2</sub> e                                      |
|                              | The actual emission reduction achieved during the monitoring period is less than the estimation in the PDD.                                                                                                                                                                                                                                                                                                                         |                                                                |
| <b>Findings</b>              | No findings                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                |
| <b>Conclusion</b>            | The estimated emission reduction as per PDD and the actual emission reduction achieved for the monitoring period are correctly reported in the section E.5 of MR. The actual achieved emission reduction is less than the PDD estimation as only 3095 units have been constructed and commissioned against a PDD estimate of 5,000 biogas units. Since the actual ER is less than estimated ER, hence no justification is required. |                                                                |

#### E.8.6. Remarks on difference from estimated value in registered PDD

|                              |                                                                                                                                              |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | The verification team has determined the VER achieved during this monitoring period with the estimated value and reason for increase if any. |
| <b>Findings</b>              | No finding                                                                                                                                   |
| <b>Conclusion</b>            | The actual achieved emission reduction is less than the PDD estimation. Hence no justification is required.                                  |

#### E.9. Assessment of reported sustainable development co-benefits

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                    |                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------|
| <b>Relevant SDG</b>          | SDG 3: Good Health and Well Being                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                    |                                         |
| <b>Parameter</b>             | Continued improved indoor air condition and reduced respiratory problems especially for women and children.                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                         |
| <b>Source</b>                | Based on experience by the communities for reduction in health problems through sample survey.                                                                                                                                                                                                                                                                                                                                                                                  |                                                    |                                         |
| <b>Monitored Value</b>       | 100% reduction in indoor air pollution.                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                    |                                         |
| <b>Means of verification</b> | The improvement in indoor air condition compared to baseline based on community perspective and Reduction in incidence of health problems i.e., eye irritation, respiratory problems, burns and wounds etc., due to better indoor air quality have been monitored through annual sample survey/15/. The sample survey sheets are verified and found that the data reported in MR is correct. It is also cross-verified through interview with end user during the onsite audit. |                                                    |                                         |
| <b>Findings</b>              | No findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                         |
| <b>Conclusion</b>            | The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct.                                                                                                                                                                                             |                                                    |                                         |
|                              | <b>Baseline Estimate</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>Project Estimate</b>                            | <b>Net Benefit</b>                      |
|                              | i. Use of traditional cookstovecausing indoor smoke and health hazards.<br><b>(100% of HHs having clear indoorair)</b>                                                                                                                                                                                                                                                                                                                                                          | i. Reduction in indoor air pollution (100% of HHs) | 100% reduction in indoor air pollution. |

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| <b>Relevant SDG</b>          | SDG 5: Gender equality and women's empowerment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
| <b>Parameter description</b> | i. Reduction in Hours for collection of woody biomass and cooking<br>ii. Women in monitoring of the project activity<br>iii. Income generation activities promoted due to the time saved for women                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |
| <b>Source</b>                | i and iii. Sample survey<br>ii. Database of CROSS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |
| <b>Monitored Value</b>       | i. Reduction in time by 95% for collection of woody biomass and 58% for cooking<br>ii. 29 Number of Women in monitoring of the project activity<br>iii. Income generation activities such as agriculture related work and small businesses promoted due to the time saved for women                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
| <b>Means of verification</b> | <p>All the sample survey sheets/15/ are checked and found that the value provided in the excel sheet is consistent with the sample survey sheets. Also, verification team conducted acceptance sample survey and confirmed that the values determined by PP though sample survey is correct. In the baseline scenario, nearly 353.41 hours per year (or 44.18 wages days) was spent on fuel wood collection, which is now reduced to 37.16 hours/year (or 4.65 wages days) and hence the saved time is used for other activities by women. Hence as per the survey results there has been reduction of fuel wood collection time by nearly 316.24 hours/year (or 39.53 wages days) which is reduction of 89%. Hence, the value reported in MR is correct.</p> <p>Number of women involved in monitoring are crosschecked from the ledger/24/ of the CROSS and the reported value is found to be correct.</p> <p>Also, the sample survey sheets/15/ are checked and found that the most of the households reported they involved in income generated activities such as Work on own Land, daily wage, more time to relax and watch television and spend time with children, tailoring, petty shop etc due to the time saved. This is also confirmed during the acceptance sample survey during onsite audit.</p> |  |  |
| <b>Findings</b>              | No findings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |  |

|                   |                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                       |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Conclusion</b> | The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct.                          |                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                       |
|                   | <b>Baseline value</b>                                                                                                                                                                                                                                                                                        | <b>Project Value</b>                                                                                                                                                                                                                                                                                                                    | <b>Net Benefit</b>                                                                                                                                                                                                                                                                                                                    |
|                   | <ul style="list-style-type: none"> <li>Women spent approximately 85.8 man days/yr in fetching, processing and storing fuelwood for cooking and</li> <li>5.4 hours per day for cooking on traditional stoves</li> <li>No women are involved in monitoring</li> <li>No income generation activities</li> </ul> | <ul style="list-style-type: none"> <li>Women spend 4.66 hr/yr for collection of woody biomass and 2.31 hr/s per day for cooking</li> <li>29 women in monitoring of the project activity</li> <li>Income generation activities such as agriculture related work and small businesses promoted due to the time saved for women</li> </ul> | <ul style="list-style-type: none"> <li>Reduction in time by 95% for collection of woody biomass and 58% for cooking</li> <li>29 Number of Women in monitoring of the project activity</li> <li>Income generation activities such as agriculture related work and small businesses promoted due to the time saved for women</li> </ul> |

|                              |                                                                                                                                                                                                                                                                                     |                                                                                                                                 |                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Relevant SDG</b>          | SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all                                                                                                                                                                                                 |                                                                                                                                 |                                                                                                                                 |
| <b>Parameter description</b> | <ul style="list-style-type: none"> <li>Number of biogas units constructed for the rural communities thereby reducing the use of fuelwood.</li> <li>Number of biogas units repaired and maintained for continuous use of biogas units making them operational</li> </ul>             |                                                                                                                                 |                                                                                                                                 |
| <b>Source</b>                | Based on data from online monitoring solution                                                                                                                                                                                                                                       |                                                                                                                                 |                                                                                                                                 |
| <b>Monitored Value</b>       | <ul style="list-style-type: none"> <li>3095 biogas units constructed</li> <li>66.34% (2050) biogas units operational</li> </ul>                                                                                                                                                     |                                                                                                                                 |                                                                                                                                 |
| <b>Means of verification</b> | The value has been derived from the project database in the online monitoring solution/14/. As per the project database, 3095 households were provided the biogas units in which 2050 digesters (66.34%) were in operational condition at the end of the monitoring period.         |                                                                                                                                 |                                                                                                                                 |
| <b>Findings</b>              | CAR-04 is raised and closed successfully                                                                                                                                                                                                                                            |                                                                                                                                 |                                                                                                                                 |
| <b>Conclusion</b>            | The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct. |                                                                                                                                 |                                                                                                                                 |
|                              | <b>Baseline value</b>                                                                                                                                                                                                                                                               | <b>Project Value</b>                                                                                                            | <b>Net Benefit</b>                                                                                                              |
|                              | No Biogas Units                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>3095 biogas units constructed</li> <li>66.34% (2050) biogas units operational</li> </ul> | <ul style="list-style-type: none"> <li>3095 biogas units constructed</li> <li>66.34% (2050) biogas units operational</li> </ul> |

|                              |                                                                                                                                                                                                |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Relevant SDG</b>          | <b>SDG 17: Partnerships for the Goals</b>                                                                                                                                                      |
| <b>Parameter description</b> | Domestic/international carbon funding to construct and maintain biogas units                                                                                                                   |
| <b>Monitored Value</b>       | Rs. 59.445 million carbon funding so far for the project activity. Rs 5.575 million during this monitoring period (100% Carbon Funding to construct, repair, maintain and monitor the project) |

|                              |                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                        |                                                                                                                                                                                        |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Source</b>                | Audited statement for the project                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                        |                                                                                                                                                                                        |
| <b>Means of verification</b> | These details are taken from the PP's audited statement. Verification team checked the audited statement/25/ & Liability acknowledgement letter/26/ and found that a total of Rs. 59.445 million carbon investment received till date (and Rs. 5.575 million received during the monitoring period) for construction, repair and maintenance to the project till end of monitoring period |                                                                                                                                                                                        |                                                                                                                                                                                        |
| <b>Findings</b>              | No finding                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                        |                                                                                                                                                                                        |
| <b>Conclusion</b>            | The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct.                                                                                                       |                                                                                                                                                                                        |                                                                                                                                                                                        |
|                              | <b>Baseline value</b>                                                                                                                                                                                                                                                                                                                                                                     | <b>Project Value</b>                                                                                                                                                                   | <b>Net Reduction</b>                                                                                                                                                                   |
|                              | No funding in the baseline scenario                                                                                                                                                                                                                                                                                                                                                       | Rs. 59.445 million carbon funding so far for the project activity. Rs 5.575 during this monitoring period (100% Carbon Funding to construct, repair, maintain and monitor the project) | Rs. 59.445 million carbon funding so far for the project activity. Rs 5.575 during this monitoring period (100% Carbon Funding to construct, repair, maintain and monitor the project) |

|                              |                                                                                                                                                                                                                                                                                     |                                                                             |                                                                             |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <b>Relevant SDG</b>          | <b>SDG 8: Decent Work and Economic Growth</b>                                                                                                                                                                                                                                       |                                                                             |                                                                             |
| <b>Parameter description</b> | Number of permanent and temporary jobs created due to the project activity                                                                                                                                                                                                          |                                                                             |                                                                             |
| <b>Monitored Value</b>       | Project related 29 temporary and 7 permanent jobs created for men and women                                                                                                                                                                                                         |                                                                             |                                                                             |
| <b>Source</b>                | Financial transactions                                                                                                                                                                                                                                                              |                                                                             |                                                                             |
| <b>Means of verification</b> | These details are taken from the PP's employment records. Verification team checked the General Ledger of CROSS/24/ and Bank receipt of salary payments/23/ and found that the employment details reported in the MR is correct.                                                    |                                                                             |                                                                             |
| <b>Findings</b>              | No findings                                                                                                                                                                                                                                                                         |                                                                             |                                                                             |
| <b>Conclusion</b>            | The parameter is monitored appropriately, in accordance with the registered monitoring plan. The monitoring results were recorded consistently as per the approved frequency in the monitoring plan. All the monitored parameter values reported in the MR are found to be correct. |                                                                             |                                                                             |
|                              | <b>Baseline value</b>                                                                                                                                                                                                                                                               | <b>Project Value</b>                                                        | <b>Net Reduction</b>                                                        |
|                              | No project related jobs created                                                                                                                                                                                                                                                     | Project related 29 temporary and 7 permanent jobs created for men and women | Project related 29 temporary and 7 permanent jobs created for men and women |

#### E.10. Stakeholder Inputs & Legal Dispute

|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Means of verification</b> | <p>All the inputs from stakeholders are related to repair and maintenance of biogas system. PP attended all the cases and resolved the same. There are no other grievances reported by Stakeholders during the current or previous monitoring period. Verification team checked the complaints register and confirmed that all the cases are resolved by repairing stove, component and digesters.</p> <p>Verification team checked with PP whether any legal consent or dispute arise during the monitoring period and PP also confirmed that there are no such legal contests or dispute that has arisen with the project during the monitoring period. Verification team also interviewed stakeholders and independently checked through Google to check any legal dispute ongoing with PP and found no such legal dispute is pending.</p> |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Findings</b>   | No finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Conclusion</b> | <p>The verification team confirms the following:</p> <ul style="list-style-type: none"> <li>• The only grievances received from biogas users are related to repairs &amp; maintenance of stoves. All the cases received during the monitoring period are attended and resolved during the monitoring period itself.</li> <li>• No other grievances received during the current or previous monitoring period</li> <li>• No legal consent or dispute raised during the monitoring period.</li> </ul> |

## SECTION F. Internal quality control

The draft verification 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 the internal procedures established by 4KES are duly followed and the verification report/opinion is reached in an objective manner and complies with the applicable Gold Standard & 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 verification team. The independent technical reviewer(s) may approve or reject the draft verification report. The findings may be identified even at this stage, which needs to be satisfactorily resolved, before submit final report to Client/Gold Standard. The final approval decision is taken by the Head of the DOE/Director.

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

## SECTION G. Verification opinion

The verification team confirms that the the evidence is of sufficient quantity, appropriate quality and reliable. The reported values, notation, units and sources in the monitoring report for all the monitoring parameters have been cross checked with the emission reduction sheet and monitoring report. During the course of verification and onsite audit, the data submitted by PP was cross verified with the values mentioned in the emission reduction sheet/2/ and monitoring report/1/. The procedure for data monitoring, recording, transfer and compilation was also verified and found in compliance with the monitoring plan as mentioned in the approved revised PDD/3/.

Evidences (Documents/interview) referred for verification of individual monitoring parameter and fixed parameters are defined in section E.6 above. It is confirmed by the assessment team that the reported emission reductions have been conservatively calculated. A list of referred documents for verification is also included in Appendix 3 of this report.

Based on the information seen and evaluated we confirm that the implementation of the project has resulted in 9,262 tCO<sub>2</sub>e emission reductions during period 01/01/2021 to 31/12/2022.

## SECTION H. Certification statement

4K Earth Science Private Limited has been contracted by 'M/s Community Reconstruction of Social Service (CROSS)' to undertake independent verification and certification for the greenhouse gas (GHG) emission reductions reported and the contribution to sustainable development indicators from the GS Project activity "Micro Scale Biogas CDM Project of CROSS" and CDM Ref# 8784 & GS Ref# GS1199 for the monitoring period 01/01/2021 to 31/12/2022 (including both dates) in the GS Monitoring Report Version 01 (first version) dated 16/03/2023.

The verification is based on the revised CDM PDD, GS PDD and the GS monitoring report for this project. Our verification approach was based on the requirements as defined under the Kyoto Protocol, Marrakech accord, as well as those defined by the Gold Standard Board.

The management of the 'M/s Community Reconstruction of Social Service (CROSS)' is responsible for the preparation of the GHG emissions data and the reported GHG emissions reductions & monitoring of SDG parameters on the basis set out within the project Final GS Monitoring Report Version 02 dated 04/07/2023. The calculation and determination of GHG emission reductions from the project is the responsibility of the management of the 'M/s Community Reconstruction of Social Service (CROSS)'. The development and maintenance of records and reporting procedures are in accordance with the GS Monitoring Report Version 02 dated 03/09/2021

In our opinion the GHG emissions reductions reported for the project activity are fairly stated in the GS Monitoring Report (final) Version 02, dated 04/07/2023. 4KES based on outcome of verification activities, certifies in writing that, during the monitoring period 01/01/2021 to 31/12/2022 (including both days), the registered CDM GS PA "Micro Scale Biogas CDM Project of CROSS" in the registered GS CDM PA achieved the verified amount of 9,262 tCO<sub>2</sub>e reductions in anthropogenic emissions by sources of greenhouse gases that would not have occurred in the absence of the PA.

The Verified emission reduction during the monitoring period 01/01/2021 to 31/12/2022 (including both dates) is stated below:

| <b>Vintage</b> | <b>Duration</b>                 | <b>Gold Standard Verified emission reductions (tCO<sub>2</sub>e)</b> |
|----------------|---------------------------------|----------------------------------------------------------------------|
| 2021           | 01/01/2021 – 31/12/2021         | 4,639                                                                |
| 2022           | 01/01/2022 - 31/12/2022         | 4,623                                                                |
| <b>Total</b>   | <b>01/01/2021 to 31/12/2022</b> | <b>9,262</b>                                                         |

## Appendix 1. Abbreviations

| Abbreviations     | Full texts                                                                            |
|-------------------|---------------------------------------------------------------------------------------|
| BE                | Baseline Emissions                                                                    |
| CAR               | Corrective Action Request                                                             |
| CDM               | Clean Development Mechanism                                                           |
| CDM EB            | CDM Executive Board                                                                   |
| CH <sub>4</sub>   | Methane                                                                               |
| CL                | Clarification Request                                                                 |
| CO <sub>2</sub> e | Carbon dioxide equivalent                                                             |
| COP               | Conference of Parties                                                                 |
| CMP               | Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol |
| CROSS             | Community Reconstruction of Social Service                                            |
| DNA               | Designated National Authority                                                         |
| DOE               | Designated Operational Entity                                                         |
| EF                | Emission Factor                                                                       |
| ERPA              | Emission Reduction Purchase Agreement                                                 |
| ERs               | Emission Reductions                                                                   |
| FAR               | Forward Action Request                                                                |
| FCN               | Fair Climate Network                                                                  |
| GHGs              | Greenhouse Gas(es)                                                                    |
| GWP               | Global Warming Potential                                                              |
| HH                | Household                                                                             |
| ISO               | International Organization of Standardization                                         |
| IPCC              | Intergovernmental Panel on Climate Change                                             |
| KP                | Kyoto Protocol                                                                        |
| LE                | Leakage Emissions                                                                     |
| MR                | Monitoring Report                                                                     |
| MP                | Monitoring Plan                                                                       |
| NGO               | Non Governmental Organisation                                                         |
| PE                | Project Emissions                                                                     |
| PDD               | Project Design Document                                                               |
| PS                | Project Standard                                                                      |
| PCP               | Project Cycle Procedure                                                               |
| QA/QC             | Quality Assurance/Quality Control                                                     |
| UNFCCC            | United Nations Framework Convention on Climate Change                                 |
| VLV               | Village Level Volunteers                                                              |
| VVS               | Validation & Verification Standard                                                    |
| VERs              | Verified Emission Reduction                                                           |
| 4KES              | 4K Earth Science Private Limited                                                      |

## Appendix 2. Competence of team members and technical reviewers

| <b><u>Certificate of Competence</u></b>            |                                                                                                                                           |                              |                    |                                        |                           |                         |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------------------------|---------------------------|-------------------------|
| <b>Name</b>                                        | <input checked="" type="checkbox"/> Mr.<br><input type="checkbox"/> Ms.                                                                   | <b>Ma Paa Puratchikkanal</b> |                    |                                        |                           |                         |
| <b>Qualification Procedure</b>                     | Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects. |                              |                    |                                        |                           |                         |
| <b>Appointed to work as:</b>                       |                                                                                                                                           |                              |                    |                                        |                           |                         |
|                                                    | <b>CDM Validator/Verifier</b>                                                                                                             | <b>Team Leader</b>           | <b>Team Member</b> | <b>Technical Expert</b>                | <b>Technical Reviewer</b> | <b>Financial Expert</b> |
| <i>Appointed</i>                                   | Yes                                                                                                                                       | Yes                          | Yes                | Yes                                    | Yes                       | Yes                     |
| <i>Appointed Date</i>                              | 15-07-2023                                                                                                                                |                              |                    |                                        |                           |                         |
| <b>Authorized to work as Technical Expert for:</b> |                                                                                                                                           |                              |                    |                                        |                           |                         |
| <i>Authorized Technical Area</i>                   | <b>Sectoral Scope</b>                                                                                                                     |                              | <b>TA Code</b>     | <b>Technical Area within the scope</b> |                           |                         |
|                                                    | 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        |                                        |                           |                         |
| <b>Authorized to work as Local Expert for:</b>     |                                                                                                                                           |                              |                    |                                        |                           |                         |
| <i>Country/Countries</i>                           | India, Sri Lanka                                                                                                                          |                              |                    |                                        |                           |                         |
| <b><u>Compliance check by:</u></b> Anand S. R.     |                                                                                                                                           |                              |                    |                                        |                           |                         |

| <b><u>Certificate of Competence</u></b>            |                                                                                                                                           |                        |                    |                                        |                           |                         |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------|----------------------------------------|---------------------------|-------------------------|
| <b>Name</b>                                        | <input type="checkbox"/> Mr.<br><input checked="" type="checkbox"/> Ms.                                                                   | <b>Swati S Acharya</b> |                    |                                        |                           |                         |
| <b>Qualification Procedure</b>                     | Fulfils the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects. |                        |                    |                                        |                           |                         |
| <b>Appointed to work as:</b>                       |                                                                                                                                           |                        |                    |                                        |                           |                         |
|                                                    | <b>CDM Validator/Verifier</b>                                                                                                             | <b>Team Leader</b>     | <b>Team Member</b> | <b>Technical Expert</b>                | <b>Technical Reviewer</b> | <b>Financial Expert</b> |
| <i>Appointed</i>                                   | Yes                                                                                                                                       | No                     | Yes                | Yes                                    | No                        | No                      |
| <i>Appointed Date</i>                              | 15-07-2023                                                                                                                                |                        |                    |                                        |                           |                         |
| <b>Authorized to work as Technical Expert for:</b> |                                                                                                                                           |                        |                    |                                        |                           |                         |
| <i>Authorized Technical Area</i>                   | <b>Sectoral Scope</b>                                                                                                                     |                        | <b>TA Code</b>     | <b>Technical Area within the scope</b> |                           |                         |
|                                                    | Energy industries (renewable - / non-renewable sources)                                                                                   |                        | 1.2                | Renewables                             |                           |                         |
|                                                    | Energy demand                                                                                                                             |                        | 3.1                | Energy demand                          |                           |                         |
|                                                    | Waste handling and disposal                                                                                                               |                        | 13.2               | Manure                                 |                           |                         |
| <b>Authorized to work as Local Expert for:</b>     |                                                                                                                                           |                        |                    |                                        |                           |                         |
| <i>Country/Countries</i>                           | India                                                                                                                                     |                        |                    |                                        |                           |                         |

|                                         |  |
|-----------------------------------------|--|
| <b>Compliance check by:</b> Anand S. R. |  |
|-----------------------------------------|--|

| <b><u>Certificate of Competence</u></b>            |                                                                                                                                            |                       |                    |                                        |                           |                         |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|--------------------|----------------------------------------|---------------------------|-------------------------|
| <b>Name</b>                                        | <input checked="" type="checkbox"/> Mr.<br><input type="checkbox"/> Ms.                                                                    | <b>Praveen Babu S</b> |                    |                                        |                           |                         |
| <b>Qualification Procedure</b>                     | Fulfills the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects. |                       |                    |                                        |                           |                         |
| <b>Appointed to work as:</b>                       |                                                                                                                                            |                       |                    |                                        |                           |                         |
|                                                    | <b>CDM Validator/Verifier</b>                                                                                                              | <b>Team Leader</b>    | <b>Team Member</b> | <b>Technical Expert</b>                | <b>Technical Reviewer</b> | <b>Financial Expert</b> |
| <i>Appointed</i>                                   | Yes                                                                                                                                        | No                    | Yes                | Yes                                    | No                        | No                      |
| <i>Appointed Date</i>                              | 15-07-2023                                                                                                                                 |                       |                    |                                        |                           |                         |
| <b>Authorized to work as Technical Expert for:</b> |                                                                                                                                            |                       |                    |                                        |                           |                         |
| <i>Authorized Technical Area</i>                   | <b>Sectoral Scope</b>                                                                                                                      |                       | <b>TA Code</b>     | <b>Technical Area within the scope</b> |                           |                         |
|                                                    | Energy industries (renewable - / non-renewable sources)                                                                                    |                       | 1.2                | Renewables                             |                           |                         |
|                                                    | Energy demand                                                                                                                              |                       | 3.1                | Energy demand                          |                           |                         |
|                                                    | Waste handling and disposal                                                                                                                |                       | 13.2               | Manure                                 |                           |                         |
| <b>Authorized to work as Local Expert for:</b>     |                                                                                                                                            |                       |                    |                                        |                           |                         |
| <i>Country/Countries</i>                           | India                                                                                                                                      |                       |                    |                                        |                           |                         |
| <b>Compliance check by:</b> Anand S. R.            |                                                                                                                                            |                       |                    |                                        |                           |                         |

| <b><u>Certificate of Competence</u></b>            |                                                                                                                                            |                              |                    |                                        |                           |                         |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------------------------|---------------------------|-------------------------|
| <b>Name</b>                                        | <input checked="" type="checkbox"/> Mr.<br><input type="checkbox"/> Ms.                                                                    | <b>Chetan Swaroop Sharma</b> |                    |                                        |                           |                         |
| <b>Qualification Procedure</b>                     | Fulfills the requirement as per the appointment of personnel procedure of 4KES for Validation and Verification of CDM/VCS/GS/GHG Projects. |                              |                    |                                        |                           |                         |
| <b>Appointed to work as:</b>                       |                                                                                                                                            |                              |                    |                                        |                           |                         |
|                                                    | <b>CDM Validator/Verifier</b>                                                                                                              | <b>Team Leader</b>           | <b>Team Member</b> | <b>Technical Expert</b>                | <b>Technical Reviewer</b> | <b>Financial Expert</b> |
| <i>Appointed</i>                                   | Yes                                                                                                                                        | Yes                          | Yes                | Yes                                    | Yes                       | No                      |
| <i>Appointed Date</i>                              | 15-07-2023                                                                                                                                 |                              |                    |                                        |                           |                         |
| <b>Authorized to work as Technical Expert for:</b> |                                                                                                                                            |                              |                    |                                        |                           |                         |
| <i>Authorized Technical Area</i>                   | <b>Sectoral Scope</b>                                                                                                                      |                              | <b>TA Code</b>     | <b>Technical Area within the scope</b> |                           |                         |
|                                                    | 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             |                                        |                           |                         |
| <b>Authorized to work as Local Expert for:</b>     |                                                                                                                                            |                              |                    |                                        |                           |                         |
| <i>Country/Countries</i>                           | India                                                                                                                                      |                              |                    |                                        |                           |                         |
| <b>Compliance check by:</b> Anand S. R.            |                                                                                                                                            |                              |                    |                                        |                           |                         |

### Appendix 3. Documents reviewed or referenced

| No. | Author        | Title                                                                                                                                                           | References to the document   | Provider             |
|-----|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------|
| 1   | CROSS         | Monitoring Report,                                                                                                                                              | Version 01, dated 16/03/2023 | CROSS                |
|     | CROSS         | Monitoring Report,                                                                                                                                              | Version 02, dated 04/07/2023 | CROSS                |
| 2   | CROSS         | ER Calculation Sheet                                                                                                                                            | Version 02, dated 04/07/2023 | CROSS                |
| 3   | CROSS         | Approved PDD                                                                                                                                                    | Version 03, dated 12/07/2017 | Publically available |
| 4   | TUV RHEINLAND | Validation Report                                                                                                                                               | dated 10/02/2012             | Publically available |
| 5   | 4KES          | 3 <sup>rd</sup> Verification Report                                                                                                                             | Version 1, dated 07/09/2021  | Publically available |
| 6   | UNFCCC        | AMS.I.E — “Switch from Non- Renewable Biomass for Thermal Applications by the User”                                                                             | Version 4                    | Publically available |
| 7   | IPCC          | 1. 1996 IPCC Guidelines for National Greenhouse Gas Inventories: work book<br>2. 2006 IPCC Guidelines for National Greenhouse Gas Inventories: work book        | <a href="#">Web Link</a>     | Publically available |
| 8   | UNFCCC        | Kyoto Protocol (1997)                                                                                                                                           | <a href="#">Web Link</a>     | Publically available |
| 9   | UNFCCC        | Monitoring Report Form (CDM-MRFORM)                                                                                                                             | Version 07.0                 | Publically available |
| 10  | UNFCCC        | CDM Project Standard for project activities                                                                                                                     | Version 02                   | Publically available |
| 11  | UNFCCC        | Standard: Sampling and surveys for CDM project activities and programme of activities                                                                           | Version 08                   | Publically available |
|     | UNFCCC        | Guidelines for sampling and surveys for CDM project activities and programme of activities                                                                      | <a href="#">Version 04</a>   | Publically available |
| 12  | UNFCCC        | CDM Validation and Verification Standard for project activities                                                                                                 | Version 02                   | Publically available |
| 13  | UNFCCC        | Glossary “CDM terms”                                                                                                                                            | Version 10                   | Publically available |
| 14  | CROSS         | Biogas basic record set:<br>- Biogas application form<br>- End user agreement for VER ownership<br>- Completion certificate<br>- Online monitoring solution     | -                            | CROSS                |
| 15  | CROSS         | Sample survey monitoring sheet for the year 2021-22)                                                                                                            | -                            | CROSS                |
| 16  | CROSS         | Previous Monitoring period survey sheets                                                                                                                        | -                            | CROSS                |
| 17  | CROSS         | Training Records:<br>- Training conducted for end user<br>- Training conducted for Mason<br>- Training conducted for staffs<br>- Training conducted for Village | -                            | CROSS                |

|    |       |                                                                                 |   |       |
|----|-------|---------------------------------------------------------------------------------|---|-------|
| 18 | CROSS | Village level plant breakdown log sheets maintained by village level volunteers | - | CROSS |
| 19 | CROSS | List of biogas units that are not functional                                    | - | CROSS |
| 20 | CROSS | Screenshots of simple random sample selection for the sample survey             | - | CROSS |
| 21 | CROSS | Grievance records                                                               | - | CROSS |
| 23 | CROSS | Bank receipts of salary paid to employees                                       | - | CROSS |
| 24 | CROSS | General Ledger                                                                  | - | CROSS |
| 25 | CROSS | Audited Statement of CROSS                                                      | - | CROSS |
| 26 | CROSS | Liability acknowledgement letter                                                | - | CROSS |

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

Table 1. Remaining FAR from validation and/or previous verifications

|                                                      |    |                    |  |                         |
|------------------------------------------------------|----|--------------------|--|-------------------------|
| <b>FAR ID</b>                                        | 01 | <b>Section no.</b> |  | <b>Date:</b> 27/01/2022 |
| <b>Description of CL</b>                             |    |                    |  |                         |
|                                                      |    |                    |  |                         |
| <b>Project participant response</b>                  |    |                    |  | <b>Date:</b> 28/02/2022 |
|                                                      |    |                    |  |                         |
| <b>Documentation provided by project participant</b> |    |                    |  |                         |
|                                                      |    |                    |  |                         |
| <b>DOE assessment</b>                                |    |                    |  | <b>Date:</b> 10/03/2022 |
|                                                      |    |                    |  |                         |

Table 2. CL from this Verification

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |    |                    |    |                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------------|----|-------------------------|
| <b>CL ID</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 01 | <b>Section no.</b> | MR | <b>Date:</b> 05/07/2023 |
| <b>Description of CL</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                    |    |                         |
| Requested PP to clarify, whether project has renewed in CDM or not. If yes, is this MR period has been credits issued there?                                                                                                                                                                                                                                                                                                                                                                                                                             |    |                    |    |                         |
| <b>Project participant response</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |                    |    | <b>Date:</b> 20/07/2023 |
| <p>The project was renewed with the UNFCCC and the Gold Standard. The UNFCCC renewal of the project can be seen at <a href="https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1355484644.55/view">https://cdm.unfccc.int/Projects/DB/TUEV-RHEIN1355484644.55/view</a>. The UNFCCC has not issued credits to this project as the monitoring period is after 2020. The project has transitioned to GS4GG without deregistering from UNFCCC. Kindly find enclosed the transition document.</p> <p>This is also added to the GS4GG Revised Monitoring Report.</p> |    |                    |    |                         |
| <b>Documentation provided by project participant</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |    |                    |    |                         |
| <p>Transition Document</p> <p>Revised Monitoring Report</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |    |                    |    |                         |
| <b>DOE assessment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                    |    | <b>Date:</b> 20/07/2023 |
| The above-mentioned reasoning has been acceptable. Hence CL01 is closed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |                    |    |                         |

|                                                                             |    |                    |     |                         |
|-----------------------------------------------------------------------------|----|--------------------|-----|-------------------------|
| <b>CL ID</b>                                                                | 02 | <b>Section no.</b> | B.1 | <b>Date:</b> 05/07/2023 |
| <b>Description of CL</b>                                                    |    |                    |     |                         |
| Table 2 The number of villages is inconsistent with ER sheet kindly verify. |    |                    |     |                         |

|                                                                                      |                         |
|--------------------------------------------------------------------------------------|-------------------------|
| <b>Project participant response</b>                                                  | <b>Date: 20/07/2023</b> |
| <i>The number of villages in the project has been made consistent with ER sheet.</i> |                         |
| <b>Documentation provided by project participant</b>                                 |                         |
| <i>Revised ER calculation sheet</i>                                                  |                         |
| <b>DOE assessment</b>                                                                | <b>Date: 20/07/2023</b> |
| The document given is reviewed and verified hence CAR02 is closed.                   |                         |

**Table 3. CAR from this verification**

|                                                                                                                             |           |                    |                       |                         |
|-----------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|-----------------------|-------------------------|
| <b>CAR ID</b>                                                                                                               | <b>01</b> | <b>Section no.</b> | <b>ER Excel Sheet</b> | <b>Date:05/07/2023</b>  |
| <b>Description of CAR</b>                                                                                                   |           |                    |                       |                         |
| 1. Biogas user sheet: CELL P1, Q1 and R1 has different dates than the monitoring period dates. PP need to correct the same. |           |                    |                       |                         |
| <b>Project participant response</b>                                                                                         |           |                    |                       | <b>Date: 20/07/2023</b> |
| <i>1. The dates of the monitoring period is changed to 01/01/2021 and 31/12/2022</i>                                        |           |                    |                       |                         |
| <b>Documentation provided by project participant</b>                                                                        |           |                    |                       |                         |
| <i>Revised ER Calculations Sheet</i>                                                                                        |           |                    |                       |                         |
| <b>DOE assessment</b>                                                                                                       |           |                    |                       | <b>Date: 20/07/2023</b> |
| The above-mentioned revision has been reviewed and verified. Hence CAR01 is closed.                                         |           |                    |                       |                         |

|                                                                               |           |                    |  |                         |
|-------------------------------------------------------------------------------|-----------|--------------------|--|-------------------------|
| <b>CAR ID</b>                                                                 | <b>02</b> | <b>Section no.</b> |  | <b>Date: 05/07/2023</b> |
| <b>Description of CAR</b>                                                     |           |                    |  |                         |
| Requested PD to submit the end user agreement of unit's ids 2813, 2986, 3255. |           |                    |  |                         |
| <b>Project participant response</b>                                           |           |                    |  | <b>Date: 20/07/2023</b> |
| <i>Kindly find enclosed the end user agreements of unit ids</i>               |           |                    |  |                         |
| <b>Documentation provided by project participant</b>                          |           |                    |  |                         |
| <i>End User Agreements of Unit ID 2813, 2986 and 3255.</i>                    |           |                    |  |                         |
| <b>DOE assessment</b>                                                         |           |                    |  | <b>Date: 20/07/2023</b> |
| Here the enclosed documents is received and verified Hence CAR02 is closed.   |           |                    |  |                         |

|                                                                                                                                   |           |                    |                 |                         |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|-----------------|-------------------------|
| <b>CAR ID</b>                                                                                                                     | <b>03</b> | <b>Section no.</b> | <b>ER SHEET</b> | <b>Date: 05/07/2023</b> |
| <b>Description of CAR</b>                                                                                                         |           |                    |                 |                         |
| Requested PP to submit repair data of individual biogas unit for verification.                                                    |           |                    |                 |                         |
| <b>Project participant response</b>                                                                                               |           |                    |                 | <b>Date: 20/07/2023</b> |
| <i>The repair data is already submitted. Kindly see the file breakdown log-Dec 2022, Sheet Breakdown and Repair, Row K and L.</i> |           |                    |                 |                         |
| <b>Documentation provided by project participant</b>                                                                              |           |                    |                 |                         |
| <i>The file is resubmitted.</i>                                                                                                   |           |                    |                 |                         |
| <b>DOE assessment</b>                                                                                                             |           |                    |                 | <b>Date: 20/07/2023</b> |
| The repair data has been submitted and verified hence CAR03 is closed                                                             |           |                    |                 |                         |

|                                                                                                                                                                                                                             |           |                    |  |                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------|--|-------------------------|
| <b>CAR ID</b>                                                                                                                                                                                                               | <b>04</b> | <b>Section no.</b> |  | <b>Date: 05/07/2023</b> |
| <b>Description of CAR</b>                                                                                                                                                                                                   |           |                    |  |                         |
| 1. Details of the demolished and other units which are not working.<br>2. PP need to submit daily monitoring data for the duration of march 2021 to April 2021 for verification.                                            |           |                    |  |                         |
| <b>Project participant response</b>                                                                                                                                                                                         |           |                    |  | <b>Date: 20/07/2023</b> |
| <i>1. the Kindly see the file breakdown log-Dec 2022, Sheet Breakdown and Repair, Row H has the details of the individual biogas units that are demolished. Column I has the date from which the units were demolished.</i> |           |                    |  |                         |
| <b>Documentation provided by project participant</b>                                                                                                                                                                        |           |                    |  |                         |
| <i>The file is resubmitted.</i>                                                                                                                                                                                             |           |                    |  |                         |
| <b>DOE assessment</b>                                                                                                                                                                                                       |           |                    |  | <b>Date: 20/07/2023</b> |

|                                                                                     |
|-------------------------------------------------------------------------------------|
| The file submitted is verified which are seems to be correct hence CAR04 is closed. |
|-------------------------------------------------------------------------------------|

**Table 4. FAR from this verification**

| FAR ID                                        | xx | Section no. | Date: DD/MM/YYYY |
|-----------------------------------------------|----|-------------|------------------|
| Description of FAR                            |    |             |                  |
| NA                                            |    |             |                  |
| Project participant response                  |    |             | Date: DD/MM/YYYY |
| Documentation provided by project participant |    |             |                  |
| DOE assessment                                |    |             | Date: DD/MM/YYYY |

- - - - -

#### Document information

| Version                                                                                                                                    | Date            | Description                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 04.0                                                                                                                                       | 6 April 2021    | Revision to:<br>Reflect the “Clarification: Regulatory requirements under temporary measures for post-2020 cases” (CDM-EB109-A01-CLAR).                                                                                                                 |
| 03.0                                                                                                                                       | 31 May 2019     | Revision to: <ul style="list-style-type: none"><li>• Ensure consistency with version 02.0 of the “CDM validation and verification standard for project activities” (CDM-EB93-A05-STAN);</li><li>• Make structural and editorial improvements.</li></ul> |
| 02.1                                                                                                                                       | 11 January 2018 | Editorial revision to correct the numbering of appendices in the instructions.                                                                                                                                                                          |
| 02.0                                                                                                                                       | 31 October 2017 | Revision to align with the requirements of the “CDM validation and verification standard for project activities” (version 01.0).                                                                                                                        |
| 01.0                                                                                                                                       | 23 March 2015   | Initial publication.                                                                                                                                                                                                                                    |
| Decision Class: Regulatory<br>Document Type: Form<br>Business Function: Issuance<br>Keywords: project activities, verifying and certifying |                 |                                                                                                                                                                                                                                                         |